Enhanced Carbine & Rifle System

HK416

Caliber 5.56 mm x 45

HECKLER & KOCH

OPERATOR'S MANUAL

August 2007 Edition

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Caliber 5.56 mm x 45

Operator´s Manual

⚠ **Before handling the weapon, read and adhere to the safety instructions!**

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This Operator's Manual apply to all HK416 variants. Where there are differences, these will be either described or illustrated.

Figures and drawings in this Operators Manual show the HK416 in a various barrel lengths. The distinctive features of these HK416 variants are listed separately.

1. UPPER RECEIVER AND BARREL ASSEMBLY – Upper receiver contains rear sight assembly (optional), ejection port, ejection port cover, and a housing for the bolt carrier assembly and bolt assembly. Rifle barrel assembly is air-cooled, contains compensator and front sight assembly (optional).
2. LOWER RECEIVER AND BUTTSTOCK ASSEMBLY – Lower receiver contains the trigger assembly, hammer assembly, selector lever, pistol grip, bolt catch, and buttstock assembly. The buttstock assembly houses the recoil spring, buffer, and receiver extension.
3. BOLT CARRIER ASSEMBLY – Carries bolt assembly to chamber and fires the weapon. Contains the firing pin, firing pin safety (HK416) cartridge extractor, bolt assembly, cartridge ejector, and bolt cam pin.
4. CHARGING HANDLE ASSEMBLY – Provides a means of charging the weapon.
5. SLING – The sling is adjustable and provides a means to carry the weapon.

HK416 KEY FEATURES

HK Free Floating barrel

- Free floating design enhances accuracy.
- Barrel lengths: 10.4"
  14.5"
  16.5"
  20"

Pusher Rod Gas system

- Directs 95% of propellant gases and fouling out of the muzzle of the weapon.
- User removable in seconds without tools.
- Same gas system for all barrel lengths (10.4", 14.5", 16.5", 20").

Improved Bolt Components (bolt head, extractor, extractor spring)

Improved HK tungsten Buffer, recoil spring for increased reliability

NOTE: It is recommended that the unique HK416 buffer and recoil spring not be exchanged with other non-HK components to ensure optimal reliability and functioning.

Improved HK High Reliability Steel Magazine

- 20 and 30-round capacity.

HK Cold Hammer Forged Barrel

- The compensator has the same standard U.S. thread and can be exchanged with all other similar compensators and flash suppressors.

MIL-STD 1913 Free Floating Rail System

- Removable by the operator without special tools.
- Retains bore sight after removal, reinstallation.
- Same sight mounting plane as weapon upper receiver rail.
- Allows user attachment of day and night accessories on dedicated rail systems.
- MIL-STD 1913 rails at 12, 3, 6, 9 o´clock positions.

HK416 D10RS 5.56 mm x 45 model (10.4" barrel)
shown with HK optional MIL-STD 1913 rail mounted rear diopter sight (100 - 400 m) and MP5 type fixed front sight.

HK416 D10RS 5.56 mm x 45 model (10.4" barrel) with AG416 40 mm x 46 grenade launcher
and HK optional MIL-STD 1913 rail mounted rear diopter sight (100 - 400 m) and MP5 type fixed front sight.

HK416 D14.5RS 5.56 mm x 45 model (14.5" barrel)
shown with HK optional MIL-STD 1913 rail mounted rear diopter sight (100 - 400 m) and MP5 type flip-up front sight.

HK416 D16.5RS 5.56 mm x 45 model (16.5" barrel)
shown with HK optional MIL-STD 1913 rail mounted rear diopter sight (100 - 400 m) and MP5 type flip-up front sight.

HK416 D20RS 5.56 mm x 45 model (20" barrel) shown without sights.

3.1 Clearing / unloading the HK416

Always clear the weapon before handling!

Make sure your fingers are outside the trigger guard and the weapon is pointed in a safe direction at all times!

1. ON SAFE – Rotate the safety/selector lever to the "SAFE" ⊠ position (the weapon must be cocked for the safety to engage).
2. REMOVE MAGAZINE – Depress the magazine release button and remove the magazine from the magazine well.
3. RETRACT BOLT – Rotate the ejection port toward the ground and pull the charging handle rearward one or more times to ensure the chamber is empty. Watch for a live round or empty case to be ejected.
4. LOCK BOLT TO REAR – While holding the charging handle rearward, press the bolt catch in to lock the bolt open. Return charging handle to forward, locked position.
5. INSPECT THE CHAMBER – Inspect the chamber for the presence of a live round or empty case.
   - Visually – View the chamber through the open ejection port.
   - Physically – Place a cleaning rod into the bore/chamber.
   - Remove any live rounds or empty cases before handling the weapon further.

The HK416 is now considered "CLEAR".

Heckler & Koch does not assume liability for events due to disregarding this manual, improper handling, negligence, and improper treatment, unauthorized exchange of parts or manipulations of the HK416.

3.2 Safety Rules

1. Read this operator's manual in its entirety and be familiar with the safe handling of this weapon before using it. Keep this manual with the HK416.
2. Before handling or cleaning the HK416 must be checked to ensure that:
   - The bolt is locked to the rear.
   - The HK416 is cleared / unloaded (chamber empty).
   - The barrel is free of obstructions.
   - The magazine is removed.
3. Never point the HK416 at anyone during handling.
4. Always point the HK416 in a safe direction.
5. Never have live ammunition in vicinity when maintaining weapon.
6. Keep your fingers off the trigger and outside the trigger guard when loading, unloading or otherwise handling the HK416.
7. Disassemble the HK416 only as far as described in this manual.
8. Never use force when handling, disassembling, cleaning and assembling the HK416.
9. Always wear eye protection when using the HK416.
10. Always wear hearing protection when firing the HK416. Ensure bystanders are also wearing ear and eye protection.
11. Always ensure that the muzzle area is free of obstacles during firing.
12. Only use factory-loaded and undamaged cartridges of the correct caliber for the HK416.
13. Place your finger on the trigger only when the weapon is aimed at a target.

3.3 Warnings

- When handling the HK416, special caution is necessary as the position and direction of the HK416 can be easily changed.
- Only use the HK416 after you have fully reviewed and understood these instructions.
- Observe all notes on handling and operation. Failure to do so may result in injury or death to the operator and/or bystanders.
- Do not operate the HK416 if you are under the influence of alcohol, drugs or medication.
- When passing the HK416 between personnel, the weapon must be "CLEAR", with the magazine removed, the bolt should be locked to the rear and the weapon on safe.
- Always treat the HK416 as if it were loaded and ready to fire.
- To avoid damage to the weapon, allow it to cool to ambient temperature after firing 250 rounds in rapid fire (less than 3 minutes).
- Never fire the HK416 without the gas piston and pusher rod installed.
- Ensure hands and fingers are clear of the muzzle during firing.

3.4 Notes

1. The HK416 utilizes component parts that ARE NOT interchangeable with M16-style weapons. Unique HK components such as the buffer (with red dot and HK marking), recoil spring (red coil spring), bolt group (HK engraved on the bolt carrier) and piston and gas system must never be fitted to other M16-style weapons. The HK416 must only be fitted and fired with original factory components.

2. While the HK416 will function with US issue aluminum magazines in good condition, the reliability of the HK416 is improved and can only be guaranteed when using HK High reliability steel magazines. The use of any magazine other than the HK magazine may reduce the reliability of the HK416 and is thus not covered under the warranty for the HK416.

3. The use of non-HK416 parts in the HK416 is not recommended. While in some cases these parts may fit they may not be made to the same dimensions or level of quality as the original HK416 parts. Use of internal non-HK416 parts to replace unique HK416 parts will void the warranty.

4. Since the HK416 is manufactured in Germany, the European standard is to serialize the part that is attached to the barrel, which in this case is the upper receiver. The upper receiver is stamped with a number which is located in the seam of the upper and lower receiver and below the forward assist. This number in no way applies to US standards. The lower receiver serial number will be for US record keeping in accordance with BATF regulations.

Weapon

Caliber:	5.56 mm x 45			
Operating principle:	Gas operated, firing from a closed bolt			
Bolt principle:	Refined rotating bolt head with multiple locking lugs			
Modes of fire:	Semi-automatic, full automatic			
Feed device:	HK High reliability 20 or 30-round steel magazines (box type)			
Barrel twist:	178 mm (1 in 7" right hand twist)			
Trigger pull:	4.6 – 6.0 lb.			
Muzzle velocity V_5 : (with M855 ammunition)	**10.4" barrel** 2,540 fps	**14.5" barrel** 2,790 fps	**16.5" barrel** 2,887 fps	**20" barrel** 3,002 fps
Chamber pressure:	52,000 psi			
Cyclic rate of fire:	700-900 rounds per minute			
Sustained rate of fire:	12/15 rounds per minute			
Maximum effective rate of fire:	SEMI-AUTOMATIC - 45 rounds per minute			

Maximum effective range	**10.4" barrel**	**14.5" barrel**	**16.5" barrel**	**20" barrel**
Individual/point targets:	300 m	400 m	500 m	600 m
Area targets:	400 m	500 m	600 m	800 m
Maximum range:	3,600 m			

Weights

HK416, complete weapon:	**10.4" barrel** 7.3 lb.	**14.5" barrel** 7.75 lb.	**16.5" barrel** 7.9 lb.	**20" barrel** 8.5 lb.
Weight, upper assembly: (w/o Buffer spring)	**10.4" barrel** 5.0 lb.	**14.5" barrel** 5.5 lb.	**16.5" barrel** 5.7 lb.	**20" barrel** 6.3 lb.
Weight, Magazine (empty):	.54 lb.			
Weight, Magazine (loaded): (with M855 Ammo)	1.3 lb.			

Dimensions

Overall length (extended):	**10.4" barrel** 30.9"	**14.5" barrel** 34.9"	**16.5" barrel** 36.9"	**20" barrel** 40.4"
Overall length (retracted):	**10.4" barrel** 27.0"	**14.5" barrel** 31.0"	**16.5" barrel** 33.0"	**20" barrel** 36.5"
Height (w/o sights and magazine):	7.25"			
Width:	2.25"			

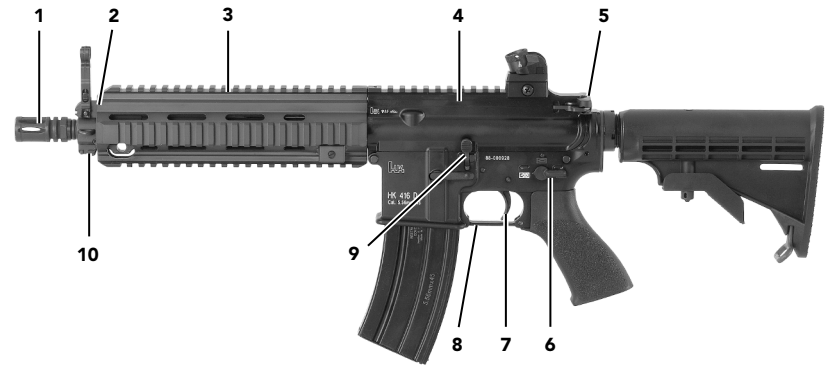


Fig. 1: HK416 D10RS with HK diopter rear sight and MP5 type flip-up front sight, **operating controls, left side view**

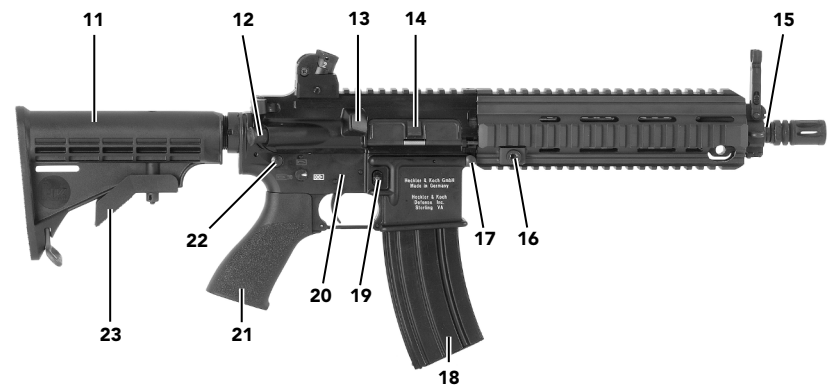


Fig. 2: HK416 D10RS with HK diopter rear sight and MP5 type flip-up front sight, **operating controls, right side view**

1 Compensator
2 Gas Block with sling attachment points, Folding Front Sight Interface & Grenade Launcher interface
3 Free Floating Rail System (FFRS) with MIL-STD 1913 rails
4 Upper Receiver
5 Charging Handle
6 Selector Lever
7 Trigger
8 Trigger Guard
9 Bolt Catch/Release
10 Bayonet Lug
11 Sliding Buttstock, 6 position, with sling swivel
12 Forward Assist
13 Case deflector
14 Ejection Port Cover Assembly
15 Barrel Assembly
16 Locking Screw, Free Floating Rail System (FFRS)
17 Pivot Pin
18 Magazine Assembly, 30-round steel
19 Magazine Catch/Release
20 Lower Receiver
21 Pistol Grip with battery storage
22 Rear Takedown Pin
23 Buttstock Release Lever

5.1 External parts nomenclature (see Fig. 1+2, pg. 9)

1. **Compensator** – Bird cage style flash hider is screwed to the end of the barrel and helps compensate for muzzle rise during firing. Absence of lower vents also helps reduce the visual signature when firing in dusty conditions **(Fig. 1/1)**.

2. **Gas Block** – Directs the expended gas from the gas port hole in the barrel and pushes the piston rearward, pushing the piston rod and bolt carrier rearward (defined in more detail in the cycle of operation). Contains two sling attachment points (left and right), bayonet lug, and an attachment point for the HK folding front sight. The HK AG416 40 mm x 46 Add-On Grenade Launcher can also be attached to the gas block **(Fig. 1/2)**.

3. **Free Floating Rail System (FFRS)** – The HK FFRS is a free-floating detachable rail system with 4-quadrant MIL-STD 1913 rails that can hold a variety of accessories from a forward grip, scopes, sights, visible lights, infrared laser pointer and illuminator, bipod and many more options to include the HK AG416 Grenade Launcher **(Fig. 1/3)**. The bore sight alignment of Aiming Devices is repeatable (no rezeroing required) when the Free Floating Rail System is removed and reinstalled on the weapon.

4. **Upper Receiver** – The upper receiver is a flat-top design with an integral MIL-STD 1913 rail that provides support for the barrel, FFRS, gas system and bolt carrier assembly. It has a case deflector and ejection port. It connects to the barrel and barrel socket. The piston rod is guided through the upper receiver by a bushing and activates the bolt carrier. The charging handle is a part of the upper receiver as is the forward assist and ejection port cover. The upper receiver is made from an aluminum forging **(Fig. 1/4)**.

5. **Charging Handle** – Allows the operator to chamber or clear a round and cock the weapon. It also provides for initial charging of the weapon. The charging handle is locked in the forward position during firing to prevent injury to the operator **(Fig. 1/5)**.

6. **Selector Lever** – Allows the operator to select the mode of fire and place the weapon on safe. The selector lever is manually activated and to be switched to safe, the hammer must be cocked. A white indicator line located on the right side of the selector lever axle indicates the firing mode selected from the right side of the weapon **(Fig. 1/6)**.

7. **Trigger** – When activated by the operator, initiates the firing sequence. Located inside the lower receiver, the trigger when squeezed with the weapon loaded and off "SAFE" will fire the gun, "SEMI-AUTOMATIC" will fire one round each time the trigger is pulled and "AUTOMATIC" will fire continuously until the trigger is released or the magazine is empty **(Fig. 1/7)**.

8. **Trigger Guard** – The trigger guard protects the trigger. It can be lowered by depressing the detent with a pointed implement so heavy gloves can be used **(Fig. 1/8)**.

9. **Bolt Catch/Bolt Release** – The bolt catch/release is manually operated. When the bolt carrier is pulled fully to the rear, the bottom of the bolt catch/release is pressed by the operator and then the bolt will be captured. To release the bolt, simply press the top of the bolt catch/release. The bolt catch/release is also automatically activated when firing the last round in a magazine **(Fig. 1/9)**.

10. **Bayonet Lug** – The bayonet lug is the U.S. Standard and is used for attaching a bayonet to the weapon and also as an attachment point for the HK AG416 40 mm x 46 Grenade Launcher **(Fig. 1/10)**.

11. **Sliding Buttstock** – Attached to the weapon via the receiver extension. The sliding buttstock is ambidextrous and adjustable to 6 positions for length of pull by squeezing the Release Lever. It also contains the rear sling swivel which allows the operator to attach the sling to the weapon. Optional buttstocks can be attached to the HK416 as required **(Fig. 2/11)**.

12. **Forward Assist** – Ensures that the bolt is fully closed and locked. The forward assist is used when the round is not fully chambered. You can push on the forward assist until the bolt seats the cartridge fully into the chamber. It will return to its rearward position by spring pressure. It can also be used to silently load the weapon **(Fig. 2/12)**.

13. **Case Deflector** – Built into the upper receiver, deflects the cartridge cases away from the operator **(Fig. 2/13)**.

14. **Ejection Port Cover Assembly** – The ejection port cover is attached to the upper receiver and is spring loaded. It will open automatically if the charging handle is pulled to the rear or if the weapon is fired and can be manually closed at any time. It closes over the ejection port to prevent sand, dust, etc. from entering the chamber. It should remain closed when the weapon is not being fired **(Fig. 2/14)**.

15. **Barrel Assembly** – The chamber accepts the cartridge for firing and directs the projectiles down range. The barrel **(Fig. 2/15)** is cold hammer forged and has standard land and groove rifling with a 178 mm (1 in 7") twist. The barrel is pressed into the upper receiver assembly and held in place by the threaded barrel nut which can be removed with the use of the HK Multi-Tool by the Unit Armorer.

16. **Locking Screw, Free Floating Rail System (FFRS)** – The Free Floating Rail System is fastened with the locking screw to the forward extending barrel locking bushing. Fastening and positioning of the Free Floating Rail System on the bushing is positive and ensures maintenance of zeroing on any sight system which has previously been attached to the rail after removal and remounting of the rail.

17. **Pivot Pin** – The pivot pin allows the upper receiver to pivot when the rear takedown pin is depressed. When both the pivot pin and rear takedown pin are depressed, the upper and lower receiver groups can be separated. The pivot pin is captive and should not be removed **(Fig. 2/17)**.

18. **Magazine Assembly** – Holds cartridges ready for feeding and provides a guide for positioning cartridges for stripping. The magazine provides quick reload capabilities for sustained firing. The HK High-reliability 30-round steel magazine and optional 20-round steel magazine have a steel follower that will not cant during the feeding process. The spring is stronger and more reliable than standard magazine springs. A more detailed description of this magazine is included on **page 27** of this manual. The HK416 can be used with magazines of all capacities **(Fig. 2/18)**.

19. **Magazine Catch/Magazine Release** – Holds the magazine (in place) in the magazine well and allows the operator to release the magazine and remove it from the weapon. The magazine catch is activated automatically when the magazine is properly inserted into the magazine well. The magazine catch is spring loaded and when the button is depressed, the magazine will drop free from the weapon when this control is activated **(Fig. 2/19)**.

20. **Lower Receiver** – Contains the fire control system for the weapon. The lower receiver contains the hammer, trigger, disconnector, sear, magazine well, magazine catch/release, bolt catch/release, selector lever, buttstock assembly with buffer and recoil spring, pistol grip and trigger guard. The lower receiver is made from an aluminum forging and provides a beveled magazine well to speed reloading **(Fig. 2/20)**.

21. **Pistol Grip** – The pistol grip is made so it can be used by a left or right handed shooter. It has a trapdoor on the bottom so extra batteries may be stored for accessories **(Fig. 2/21)**.

22. **Rear Takedown Pin** – When the rear takedown pin is depressed, it allows the upper receiver to pivot on the front pivot pin. This pin is captive and should not be removed **(Fig. 2/22)**.

23. **Buttstock Release Lever** – The buttstock release lever locks the telescopic buttstock to the tubular rear buttstock extension. The buttstock is adjustable in length in 6 positions.

5.2 Internal parts nomenclature

Muzzle – The muzzle is the area at the end of the barrel and the last area that the projectile touches before it exits the bore.

Bore – The part of the barrel that the projectile travels through from the chamber to the muzzle and contains lands and grooves which make the projectile rotate.

Chamber – The chamber is the area where the cartridge is seated and the initial phase of firing occurs.

Bolt and Carrier Assembly – Provides stripping, chambering, locking, firing, extraction, and ejection of the cartridges using the recoil spring and projectile propellant gases for power. These parts are made of the highest quality steel.

Bolt – The bolt locking lugs rotate and lock the barrel and bolt together prior to cartridge ignition.

Extractor – The extractor grabs the rim of the cartridge case and pulls the case out of the chamber. The extractor spring and buffer provide constant pressure on the rim until the case is ejected.

Ejector – The ejector pushes against the cartridge base under constantly spring tension and once the cartridge or case is extracted and clears the front of the ejection port, the cartridge or case is ejected from the weapon.

Cam Pin – The cam pin allows the bolt to cam inside the bolt carrier, which allows the bolt to lock into the barrel extension when fully forward and cams to unlock when the carrier is pulled to the rear.

Firing Pin – The firing pin will strike the primer and initiate the firing sequence once the trigger is pulled. The firing pin will only protrude through the face of the bolt when the bolt is fully locked forward.

Firing Pin Safety Spring – Prevents an accidental discharge in the event of dropping or jolting the gun.

Firing Pin Retaining Pin – Retains the firing pin in the bolt carrier.

Recoil spring and buffer – The recoil spring provides constant pressure on the bolt carrier and holds the bolt in a locked forward position. The buffer has tungsten granules that act as a anti-bounce back mechanism. One type of buffer serves all barrel lengths.

Buffer detent – Captures the buffer and spring and when depressed, releases them for removal.

Hammer – The hammer, when released by the trigger, strikes the firing pin. The hammer returns when the bolt carrier pushes back under recoil, the hammer makes contact with the disconnector and will release from the disconnector when the trigger is released. The hammer remains cocked under spring pressure.

Trigger – The trigger, when squeezed, releases the hammer and returns under spring tension.

Disconnector – Captures the hammer when it is cocked to the rear and releases the hammer to the sear when the trigger is released. The disconnector then returns to its original position under spring tension.

Fig. 3: HK416 D10RS

HK416 D10RS

- 10.4" barrel, with Free Floating Rail System (FFRS)
- HK 30-round steel magazine
- HK multi-purpose sling and operator's manual

Fig. 4: HK416 D14.5RS

HK416 D14.5RS

- 14.5" barrel, with Free Floating Rail System (FFRS),
- HK 30-round steel magazine,
- HK multi-purpose sling and operator's manual

Fig. 5: HK416 D16.5RS

HK416 D16.5RS

- 16.5" barrel, with Free Floating Rail System (FFRS),
- HK 30-round steel magazine,
- HK multi-purpose sling and operator's manual

Fig. 6: HK416 D20RS

HK416 D20RS

- 20" barrel, with Free Floating Rail System (FFRS),
- HK 30-round steel magazine,
- HK multi-purpose sling and operator's manual

7.1 Assembly groups (see Fig. 11)

Fig. 11: Assembly groups

1. Lower Receiver Assembly - contains the Buttstock assembly (holds buffer and recoil spring), pistol grip, selector lever, trigger group, trigger guard, magazine catch/release, bolt catch/release, magazine well, pivot pin and take down pin.
2. Buffer and recoil spring
3. Charging Handle Assembly
4. Upper Receiver Assembly - contains the forward assist, case deflector, ejection port cover assembly, Free Floating Rail System, gas block (includes ambidextrous sling points, bayonet lug, folding front sight point and Grenade Launcher attachment point), compensator, barrel, gas piston and piston rod.
5. Bolt Carrier Assembly
6. Magazine Assembly

7.2 Operating controls

⚠ **WARNING: Read and understand sections** *3.2 Safety Rules* **AND** *3.3 Warnings* **prior to handling the weapon. Always ensure the weapon is clear and safe.**

Selector lever function

Cock the HK416 by pulling the charging handle to the rear **(Fig. 12)** and at the same time, pushing down and engaging the bolt catch **(Fig. 13)**. Push the charging handle into its forward locked position. Place the selector lever with the point towards the "Safe Position" white box with the bullet enclosed ⌧ (**see Fig. 14, pg. 16**, these are called Pictogram markings).

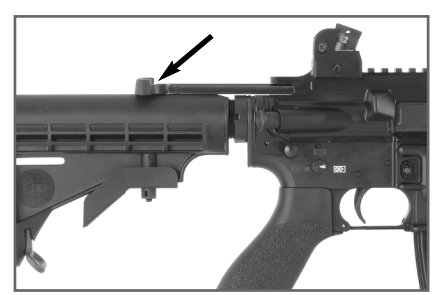


Fig. 12: Shows charging handle to the rear

Fig. 13: Shows lower portion bolt catch depressed

"SAFE POSITION" – Place the selector lever with the point facing towards the closed white box containing a bullet symbol with an "X" over it (towards the muzzle) **(Fig. 14)**.

Fig. 14: Selector set on "SAFE"

"SEMI-AUTOMATIC POSITION" – Place the selector lever with the point towards the closed red box containing a red bullet symbol in it (straight up position) **(Fig. 15)**.

Fig. 15: Selector set on "SEMI-AUTOMATIC"

"AUTOMATIC POSITION" 30 – Place the selector lever with the point facing towards the open red box containing a red bullet symbol and the number "30" in it (to the rear) **(Fig. 16)**.

Fig. 16: Selector set on "AUTOMATIC"

7.3 Loading the HK416

Method: No magazine is in the weapon. The bolt is in its forward (locked) position.

1. Pull the charging handle all the way to the rear and hold it in position **(Fig. 17)**.
2. Push the bolt catch in with the index finger to lock the bolt to the rear **(Fig. 18)**.
3. Push the charging handle back fully into the receiver **(Fig. 19)**.
4. Set the selector lever on "SAFE" **(Fig. 14)**.
5. Insert a loaded magazine into the magazine well until the magazine catch engages the magazine. Tug on the magazine to ensure it is securely engaged.
6. Push the bolt catch button in, the bolt will move forward and feed a round into the chamber **(Fig. 18)**.
7. The weapon is now loaded and set on "SAFE".

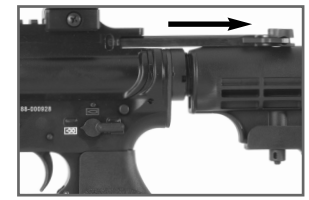


Fig. 17

Fig. 18

7.4 Reloading the HK416

Method: The magazine in the weapon is empty. The bolt is held to the rear by the bolt catch. Same procedure as above, except the bolt is already locked to the rear and you must first set the selector to "SAFE".

1. Set the selector lever to "SAFE" **(Fig. 14)**.
2. Depress the magazine release button with the right index finger or thumb **(Fig. 21)**. Remove the empty magazine from the magazine well. Store the empty magazine in a magazine pouch.
3. Insert a loaded magazine into the magazine well until the magazine catch engages the magazine. Tug on the magazine to ensure it is securely engaged.
4. Push the bolt catch in to release the bolt and to chamber a round **(Fig. 18)**.
5. The weapon is now loaded and set on "SAFE".

Fig. 19

Fig. 20

NOTE: Instead of using the bolt release to release the bolt, the charging handle can be pulled fully to the rear; this releases the bolt catch and bolt. Release the charging handle at the rear position. DO NOT RIDE THE CHARGING HANDLE FORWARD; THE BOLT MAY NOT COMPLETELY LOCK FORWARD. If the bolt does not fully close, press the forward assist until it closes completely.

Fig. 21

⚠ WARNING: Before firing the HK416, ensure that:
1. The bore is clear of obstructions.
2. The weapon is pointed only at your intended target.
3. You are sure of your backstop and the impact area beyond.
4. Your hands and fingers are away from the muzzle.

⚠ WARNING: To avoid damage to the weapon, allow it to cool to ambient temperature after firing 250 rounds in rapid cadence (less than 3 minutes).

7.5 Unloading the HK416

See section **3.1, pg. 6** *Clearing / unloading the HK416.*

NOTE: The HK416 is disassembled without the use of tools. The use of force is not recommended. The user of this weapon is not allowed to disassemble the weapon beyond that which is covered in this operator's manual. Such disassembly may only be carried out by qualified maintenance personnel (HK certified armorer).

Safety check/clearing the HK416 **(see Fig. 14, 17-21)**

1. ON SAFE – Rotate the safety/selector lever to the "SAFE"position ⊠ (the weapon must be cocked for the safety to engage).
2. REMOVE MAGAZINE – Depress the magazine release button and remove the magazine from the magazine well.
3. RETRACT BOLT – Rotate the ejection port toward the ground and pull the charging handle rearward one or more times to ensure the chamber is empty. Watch for a live round or empty case to be ejected.
4. LOCK BOLT TO REAR – While holding the charging handle rearward, press the bolt catch in to lock the bolt open. Return charging handle to forward, locked position.
5. INSPECT THE CHAMBER – Inspect the chamber for the presence of a live round or empty case.
   - Visually – View the chamber through the open ejection port.
   - Physically – Place a cleaning rod into the bore/chamber.
   - Remove any live rounds or empty cases before handling the weapon further.
6. DEPRESS THE BOLT CATCH – so the bolt will return forward.

The HK416 is now considered "CLEAR".

8.1 Disassembly into the assembly groups (Field-Stripping)

NOTE: Ensure the bolt is forward.

1. Depress the takedown pin by pushing on the left side towards the right. It is a captive pin **(Fig. 22)**.
2. Lift the rear of upper receiver away from the lower receiver **(Fig. 23)**.
3. Depress the pivot pin by pushing on the left side towards the right. It is a captive pin **(Fig. 24)**.
4. Separate the Upper Receiver from the Lower Receiver **(Fig. 25)**.

Fig. 22

Fig. 23

Fig. 24

Fig. 25

CAUTION: The buffer and spring are under considerable spring tension. Slowly remove the buffer and recoil spring (Fig. 26, 27 and 28).

NOTE: The HK recoil spring is partially red painted. The buffer is marked with a red dot on the Front surface, and additionally marked with the HK Logo.

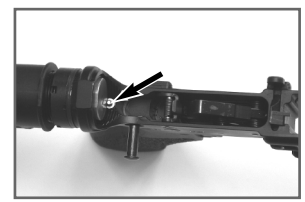


Fig. 26

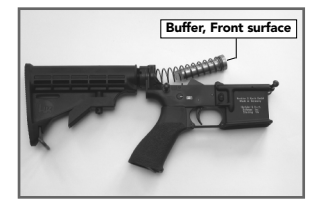


Fig. 27

Fig. 28

5. Depress the buffer retainer while holding the buffer **(Fig. 26)**. and remove buffer and spring **(Fig. 27)**.
6. Pull the charging handle to the rear until the bolt carrier assembly can be removed **(Fig. 29 and 30)**.
7. Continue to slide the charging handle to the rear until the lugs in the handle line up with the recesses in the upper receiver and slide up and back out **(Fig. 31 and 32)**.

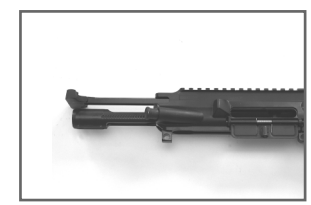


Fig. 29

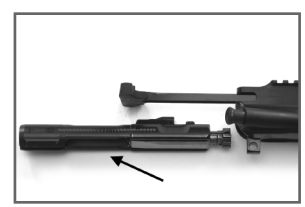


Fig. 30

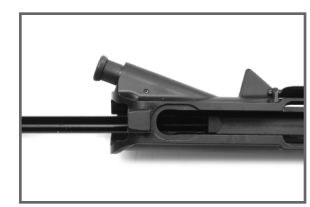


Fig. 31

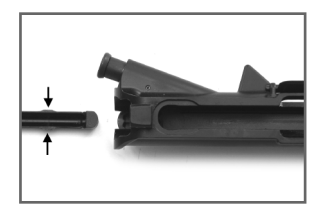


Fig. 32

8. Depress the firing pin retaining pin from right to left **(Fig. 33)**. Remove firing pin retaining pin from the bolt **(Fig. 34)**.
9. Tilt bolt upright, lift the firing pin safety and the firing pin with firing pin spring will fall downward and out of its position **(Fig. 35)**.

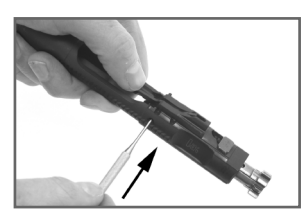


Fig. 33

Fig. 34

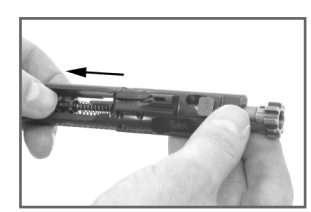


Fig. 35

10. Remove the Cam Pin **(Fig. 36)** and pull straight up and out of the bolt carrier **(Fig. 37)**.
11. Remove the bolt from bolt carrier by pulling it straight out of the front of the bolt carrier **(Fig. 38)**.

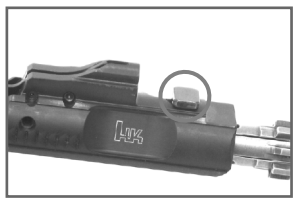


Fig. 36

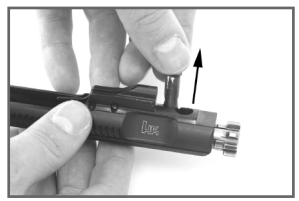


Fig. 37

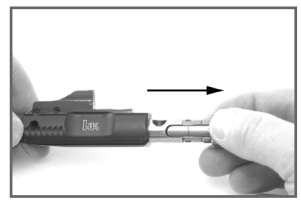


Fig. 38

NOTE: Disassemble the HK416 extractor and spring only when dirty, damaged, or extraction problems occur. Removal of the HK416 extractor is not required for every cleaning due to the type of gas system employed in the weapon.

12. Press the rear of the extractor to check that the spring works and there is a lot of tension. Use a cleaning rod or the firing pin to push out the extractor pin from either direction **(Fig. 39 and 40)**.
13. Once the pin is removed, the extractor can easily be removed with the extractor spring and extractor buffer attached **(Fig. 41)**.

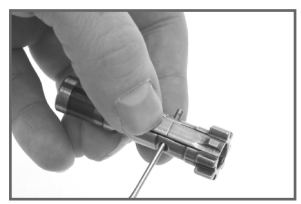


Fig. 39

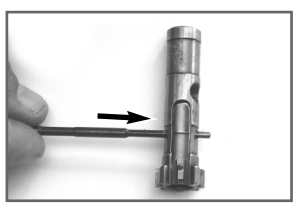


Fig. 40

Fig. 41

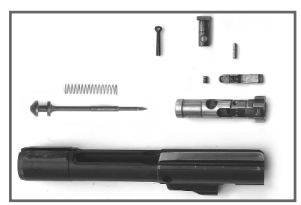


Fig. 42

14. To remove the screw for the one-piece handguard or Free Floating Rail System (FFRS), use the Sling Snap Hook **(Fig. 43)** or the bolt lug **(Fig. 44)** and insert either into the slot and turn counter clockwise. Pull the screw straight out until it is held by the retaining spring **(Fig. 45)** and then the one-piece handguard or FFRS will slide forward. Notice the alignment tab on the upper rail **(Fig. 46)**.

CAUTION: If the HK Folding front sight is installed, it must be folded down before removal / assembly of the FFRS.

Fig. 43

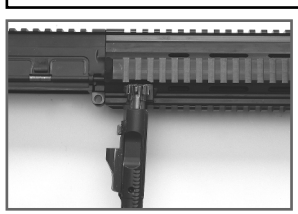


Fig. 44

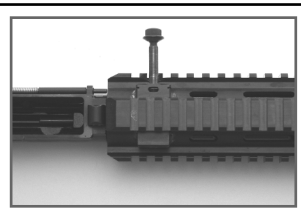


Fig. 45

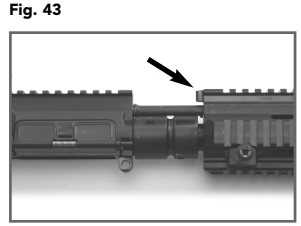


Fig. 46

15. Remove the piston rod by pulling back **(Fig. 48)** and compressing the spring about 20 mm (3/4 in) until the rod clears the piston **(Fig. 49)** and remove it by lifting up and forward **(Fig. 50)**. (This part should not be disassembled further).
16. Remove the piston by pulling it back until the piston clears the gas block. **(Fig. 51)** The piston rings should only be removed and/or replaced by a HK certified armorer.
17. There is no further disassembly of the barrel and upper receiver at the operator level **(Fig. 52)**.

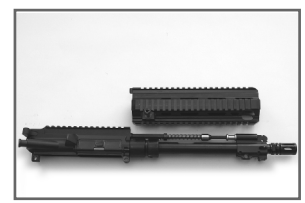


Fig. 47

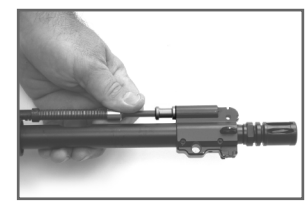


Fig. 48

Fig. 49

Fig. 50

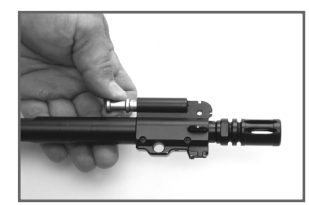


Fig. 51

Fig. 52

9.1 Care and cleaning of the HK416

There are no special requirements, cleaners, or lubricants required for cleaning the HK416. The standard HK cleaning kit that is used for all 5.56 mm HK rifles and carbines may be used for this weapon.

Cleaning may be completed using dry cleaning solvent, bore cleaner, wiping with a cloth or an all purpose nylon brush. Using these guidelines will determine which applies. Cleaning materials are pipe cleaners, swabs, all purpose nylon brush and rags.

NOTE: If cleaning is completed using a solvent, then a coat of lubricant must be applied for protection against rust and the elements. Dry cleaning solvent may be used to completely remove lubricants. For example, when moving to extreme cold weather operations, dry cleaning solvent may be used to remove traces of CLP before applying LAW.

The following lubricants can be used on this weapon CLP (Breakfree, TW25 B), LSA, LAW or OX24. Always shake CLP before use.

CLP does three things at once:

1. It contains solvents to dissolve firing residue and carbon.
2. It lays down a layer of Teflon as it dries to provide lubrication.
3. It prevents rust from forming.

Use CLP as follows:

1. Always shake bottle well before use.
2. Place a few drops on a swab or rag.
3. Clean the weapon with these swabs and rags until they come out clean.
4. Take a swab or rag and apply a fresh, light coat.

CAUTION: Don't "dry clean" your weapon. Do not use hot water or other solvents or you will wash away the Teflon lubricant that has been building up as a result of your using CLP. If CLP is not used, RBC may be used to remove carbon.

General Cleaning is required under normal conditions and the following procedures apply.

1. Always clean after firing, after the weapon is wet or in adverse weather conditions. Remove areas of powder fouling, debris and grit, corrosion and dirt. Clean the bore with a bore brush and the cable cleaning rod **(Fig. 58)**. Pull the brush from the chamber to the muzzle. Complete this several times with bore cleaner and let soak several minutes if time permits. Clean the chamber with the chamber brush and a solid cleaning rod handle **(Fig. 57)**. Rotate the chamber brush with bore cleaner by pushing and twisting and also let it soak for several minutes while the upper receiver, piston, piston rod and bolt carrier group are cleaned with the all purpose brush using bore cleaner. Wipe excess cleaner off with a rag and then run several patches through the bore with the cable rod from the chamber to the muzzle until there is no residue on the patch **(Fig. 59)**.
2. Use an all purpose nylon brush or swab and apply a light coat of lubrication with a clean swab to all the metal surfaces, including the bore, the locking lugs in the chamber and on the bolt. A drop of oil should be placed on the ejector, extractor, cam pin, trigger pin, hammer pin, charging handle spring and forward assist.
3. If the weapon has been disassembled, then all parts should be thoroughly cleaned and lubricated before assembly. This is the best time to inspect all the parts before assembly.

4. A light coat of oil should be applied to the receiver extension, buffer and recoil spring.
5. A generous coat of oil should be applied to outside of the cam pin, firing pin retaining pin, outside of bolt, outside of bolt carrier, takedown pin, and pivot pin and inside parts of the lower receiver.
6. A function check should be completed on the selector, trigger group and bolt group when cleaning is completed **(page 26)**.

All firearms require proper lubrication to function as designed and the HK416 is no exception. Absence of lubrication may impede the operation of the HK416, particularly in load-bearing or friction contact areas. Excessive lubrication may also cause function problems by acting as a magnet for dirt, grit, sand, and fouling. Any type of high quality, medium weight lubricant (oil) specifically designed for use on firearms will work well on the HK416. Do not use lubricants that boast of their ability to penetrate metal as these substances may deaden cartridge primers.

9.2 Lubrication Guide

NO Lubrication: (surface is dry and not slippery to the touch)

- Plastic or rubber components,
- Sling webbing,
- Optics.

Lubrication:

- Gas Piston and Gas Cylinder,
- Buffer and recoil spring,
- Bolt, Bolt carrier, Cam pin and Firing Pin Safety,
- Extractor,
- Ejector,
- Barrel extension,
- Bore, chamber, locking surfaces of the chamber and bolt lugs,
- Receiver take down and pivot pin,
- Hammer, trigger, disconnector springs and selector in trigger group,
- Piston rod,
- All metal parts and/or any area where metal contacts metal.

Severe conditions

Extreme temperature lubrication procedures: If the HK416 is to be used or fired in temperatures below -35 degrees F (-37°C), thoroughly remove all other types of lubricant from all internal and external surfaces of the firearm, and apply LAW (Lubricating oil, Arctic, Weapon) lubricant, NSN 9150-00-292-9689.
Refer to the lube guide below for further guidance on selecting the correct lubricant for all temperature ranges.

Under all but the coldest Arctic conditions, CLP is the lubricant to use on your weapon.

- Between +10 degrees F (-12°C) and -10 degrees F (-23°C) either CLP or LAW may be used.
- Below -10 degrees F (-23°C) use LAW.

NOTE: Do not mix lubricants on the same parts of the weapon. The weapon must be thoroughly cleaned during the change from one lubricant to another. Dry cleaning solvent (SD) is recommended for cleaning during the change from one lubricant to another.

9.3 Lubrication plan

Shaded parts must be lubricated before and after each firing/cleaning with CLP (Breakfree, TW2, OX24).

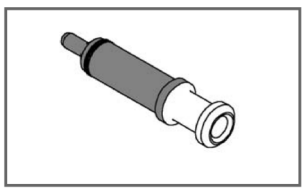


Fig. 53: Gas-piston

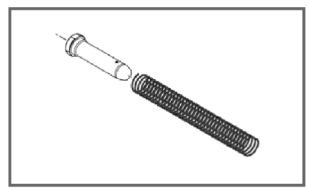


Fig. 54: Recoil spring

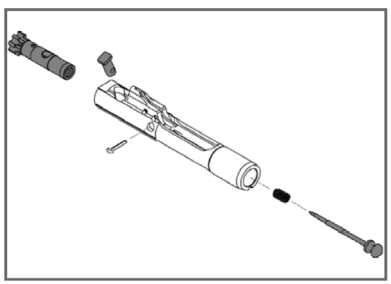


Fig. 55: Bolt, disassembled

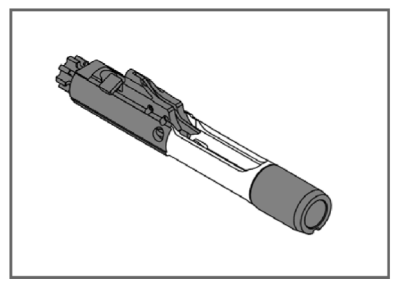


Fig. 55a: Bolt, assembled

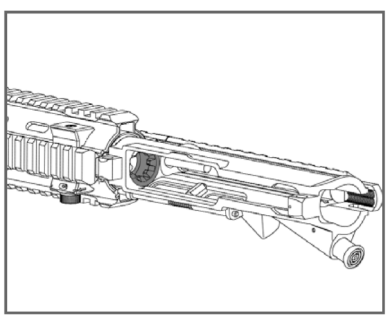


Fig. 56: Locking lugs

9.4 Lubrication plan in sandy environments

Sandy environments require intensive care and cleaning of the weapon.

In sandy environments, the complete weapon must be cleaned down to component level after each firing as illustrated below. Shaded parts must be lubricated after cleaning with CLP (Breakfree, TW2 B), LSA, LAW, or OX24.

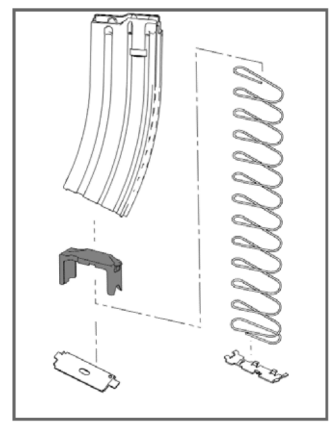


Fig. 56a: Magazine follower

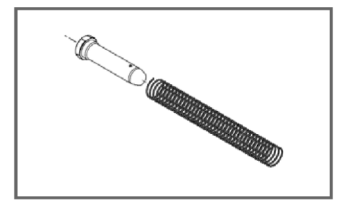


Fig. 56b: Recoil spring

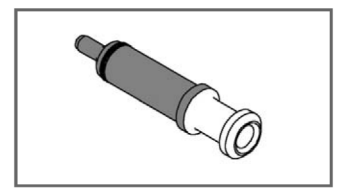


Fig. 56c: Gas-piston

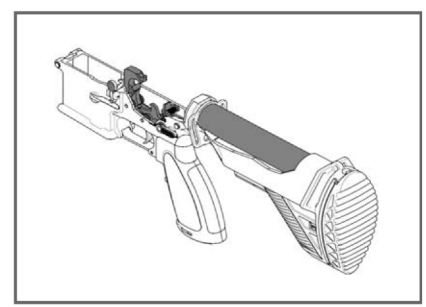


Fig. 56d: Trigger mechanism and inner tube

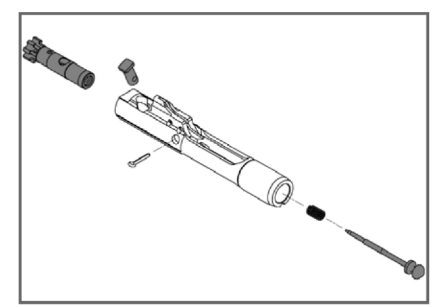
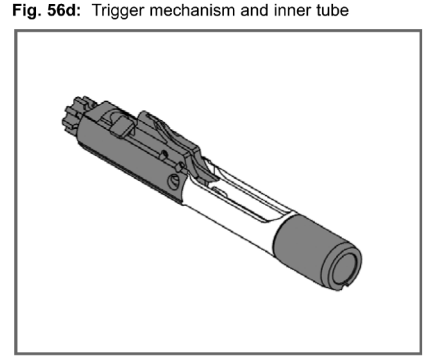
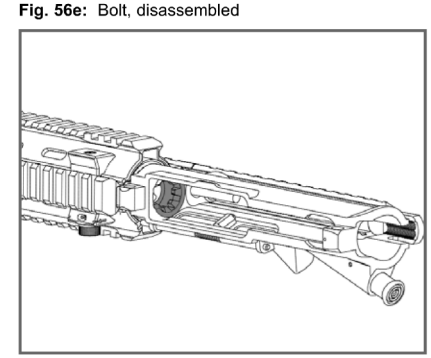


Fig. 56e: Bolt, disassembled





9.4 Inspection

A visual inspection is recommended each and every time you clean the weapon, the weapon is disassembled, or a problem exists with the weapon.

Inspect the barrel, piston, piston rod and Free Floating Rail System for cracks, bends or breaks and notify the unit Armorer if you see a potential problem.

Inspect ejector tension, extractor tension and check for cracks, bends or breaks on the charging handle, bolt lugs, firing pin retaining pin and bolt carrier.

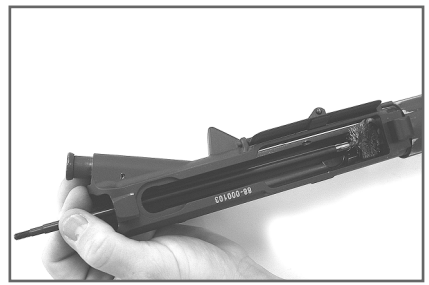


Fig. 57: Cleaning the Chamber

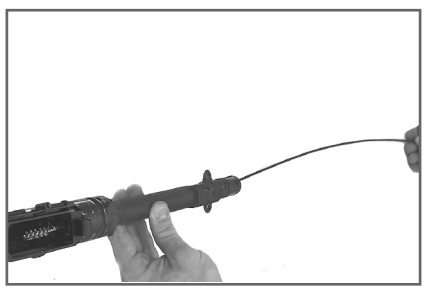


Fig. 58: Cleaning the bore

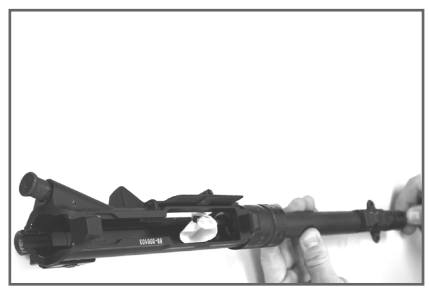


Fig. 59: Swabbing the bore

Reassembly is the reverse of disassembly and starting with the last piece disassembled and working your way backward. At the end of assembly a complete function check must be completed to ensure all parts are assembled correctly.

1. Assemble the Piston into the gas block by sliding it forward until it seats flush with the gas block **(Fig. 51)**.
2. Insert the Piston Rod into the bushing of the upper receiver and then compress the spring until the forward end of the Piston Rod can be inserted into the Piston **(Fig. 50, 49 and 48)**.
3. Slide the Free Floating Rail System (FFRS) or the One-Piece Handguard (which ever model applies) onto the barrel nut and ensuring the alignment tab is on top **(Fig. 46)**. Push in the Screw **(Fig. 45)** and tighten with the bolt lugs **(Fig. 44)** or the snap hook of the sling **(Fig. 43)**. (DO NOT over tighten).

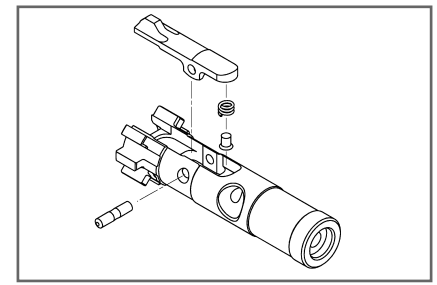


Fig. 60: Extractor spring and buffer

4. The Extractor Spring with the buffer inserted can be inserted into the hole of the extractor and while holding the extractor upside down, attach the bolt and insert the Extractor pin into the hole **(Fig. 60, 41 and 40)**. The pin must not protrude from either side and pressure might have to be applied to compress the Extractor while completing this.
5. Assemble bolt to Bolt carrier with extractor to the right. Insert cam pin and align hole so the firing pin spring and the firing pin can be inserted (lift the firing pin safety device latch), and then insert the firing pin retaining pin.
6. Insert the charging handle locking tabs into the upper receiver **(Fig. 32 + 31)**. Insert Bolt carrier assembly into the charging handle and together assemble into the upper receiver **(Fig. 30 + 29)**.
7. Insert the Recoil spring and buffer into the lower receiver, receiver extension **(Fig. 27)**.
8. Assemble the upper receiver to the lower receiver (ensure selector is set on SAFE) and depress the Takedown and pivot pins **(Fig. 25 - 22)**.

10.1 Function check of the HK416

A function check of the HK416 should be completed every time the weapon is disassembled, assembled, cleaned or if a problem exists. If there is a problem, take the weapon to the unit Armorer for a detailed inspection.

Function check is carried out the same way as it is to clear the weapon with a few additions.

1. Remove the magazine. Pull the charging handle to the rear and press the bolt catch/release to lock the bolt to the rear. Inspect the chamber to make sure the weapon is clear. Return charging handle forward. Place weapon on SAFE.
2. Press the bolt catch/release to let the bolt go forward. Attempt to pull the trigger to see if the hammer falls, IT SHOULD NOT FALL.
3. Place the weapon on SEMI-AUTOMATIC; pull the trigger, the hammer should fall.
4. Charge the weapon while holding the trigger to the rear and the hammer should be captured by the disconnector. Release the trigger and a click should be heard when the disconnector releases the hammer to stop on the nose of the trigger.
5. Place the weapon on AUTOMATIC. Pull the trigger, hammer should fall. Keep the trigger to the rear and recock the bolt and release so the bolt will ride forward. The hammer should follow. Release the trigger and recock, the hammer should be captured by the auto sear.

If there are any situations that did not occur as described, take the weapon to the unit Armorer.

11.1 Disassembly of the HK High reliability 30-rd steel magazine

This magazine is available with two different surface finishes. Standard and proprietary HK "Maritime" anti-corrosion coating that resists corrosion for more than 96 hours in a salt water/spray environment. The magazines can be identified by the magazine follower. The standard magazine follower is a bright color, the Maritime magazine follower is black. Like the follower all parts in the Maritime magazine are specially coated.

CAUTION: Parts are under considerable spring pressure. Wear safety goggles and point the base of the magazine housing in a safe direction when disassembling or assembling. Read the complete procedure before attempting to disassemble the magazine.

To disassemble the magazine for cleaning or inspection, push in the locking plate (1) with a cleaning rod, or cartridge. As you depress the locking plate through the window of the floor plate, pull back towards the rubber bumper (where applicable) (2) so the locking tab (3) will exit the locking window (4) of the housing. When the locking tab lifts up, the floor plate (5), locking plate (6), spring (7) and follower will come out under pressure from the housing (8). The floor plate is easily removed from the locking plate, which is attached to the spring and follower. Take note as to the arrangement of these parts for assembly. For cleaning purposes, it is not necessary to disassemble the follower and locking plate from the spring **(Fig. 61 and 62)**.

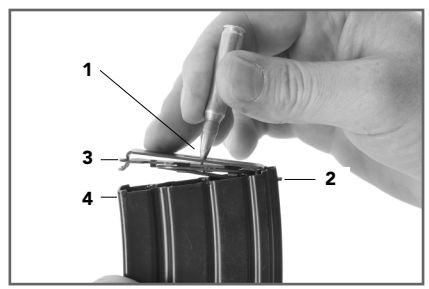


Fig. 61

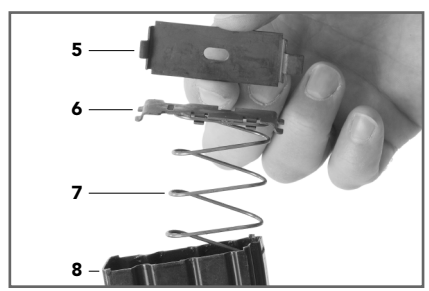


Fig. 62

11.2 Nomenclature (HK High reliability 30-rd steel magazine)

1. Housing
2. Follower
3. Spring
4. Locking Plate
5. Floor plate extension, front
6. Floor plate extension, rear with rubber bumper

HK High reliability 30-rd steel magazine, compl.
Ident.-No: 251 770

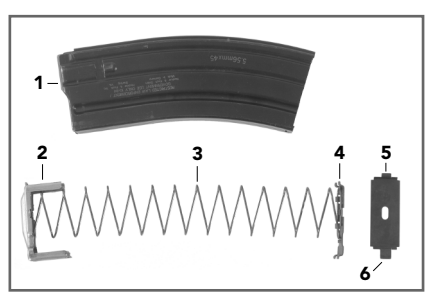


Fig. 63

11.3 Cleaning (HK High reliability 30-rd steel magazine)

There are no special requirements, cleaners or lubricants for cleaning this magazine. The standard cleaning equipment that is used for the rifle may be used for this magazine. Refer to the care and cleaning section of this Operator´s Manual for more detailed information. Do not use metal bristle (brass or steel) or wire brushes to clean the Maritime components as damage may occur to the protective qualities of the surface finish.

Cleaning may be completed using dry cleaning solvent, bore cleaner, wiping with a cloth or an all purpose nylon brush. Using these guidelines will determine which applies. Cleaning materials are pipe cleaners, swabs, all purpose nylon brush and rags.

NOTE: If cleaning is completed using a solvent, then a coat of lubricant must be applied for protection against rust and the elements. Dry cleaning solvent may be used to completely remove lubricants. For example, when moving to extreme cold weather operations, dry cleaning solvent may be used to remove traces of CLP before applying LAW.

The following lubricants can be used on this magazine CLP, LSA or LAW. Always shake CLP before use.

CLP does three things at once:

1. It contains solvents to dissolve firing residue and carbon.
2. It lays down a layer of Teflon as it dries to provide lubrication.
3. It prevents rust from forming.

Use CLP as follows:

1. Always shake bottle well before use.
2. Place a few drops on a swab or rag.
3. Clean the magazine with these swabs and rags until they come out clean.
4. Take a swab or rag and apply a fresh, light coat.

CAUTION: Don't "dry clean" your magazines. Do not use hot water or other solvents or you will wash away the Teflon lubricant that has been building up as a result of your using CLP. If CLP is not used, RBC may be used to remove carbon.

General cleaning is required under normal conditions and the following procedures apply:

1. Always clean after firing, after magazine is wet or in adverse weather conditions. Remove areas of powder fouling, debris and grit, corrosion and dirt.
2. If magazine is assembled, clean carbon off of follower and feed lips with the all purpose nylon brush or swab and apply a light coat of lubrication with a clean swab.
3. If the magazine has been disassembled, then all parts should be thoroughly cleaned and lubricated before assembly.

NOTE: Do not use metal bristle brushes (brass or steel) to clean the surfaces of the magazine housing or damage to the protective finish not covered by warranty may occur.

NOTE: Do not mix lubricants on the same magazine. The magazine must be thoroughly cleaned during the change from one lubricant to another. Dry cleaning solvent (SD) is recommended for cleaning during the change from one lubricant to another.

Lube guide

Under all but the coldest Arctic conditions, CLP is the lubricant to use on your magazine. Between +10 degrees F (-12°C) and -10 degrees F (-23°C) either CLP or LAW may be used. Below -10 degrees F (-23°C) use LAW.

11.4 Inspection (HK High reliability 30-rd steel magazine)

A visual inspection is recommended each and every time you clean the magazine, the magazine is disassembled, or a problem exists that could be magazine related. The following are guidelines that can help in identifying and solving magazine related problems. Many weapon system problems are very often related to incorrect operator use or maintenance, faulty ammunition and/or problems in the weapon. These areas should be checked for problems at the same time the magazine is inspected. If the same problem exists with more than one magazine, then more than likely it is a rifle, operator or ammunition problem. When problems do occur, mark/identify the suspect magazine with a tag or paint/grease pen and use the following as a guideline.

Magazine Assembly: Check for proper assembly. Inspect overall function of follower (free movement), locking tabs, dents, cracks, etc.

Housing: Inspect feed lips for dents and proper spacing, sides for dents, magazine catch area for worn surfaces or dents, cracks, etc.

Follower: Inspect for free movement inside of housing, dents, cracks and deformities.

Spring: Inspect for bends, cracks, weak tension.

Locking Plate: Inspect for worn or broken tabs. It should retain floor plate and stay securely attached to the spring.

Floor plate: Inspect for bends, cracks and correct fit of the locking tabs into the locking recess of housing.

Rubber bumper: Insure bumper retains floor plate into housing when assembled and there are no signs of extreme wear.

If any problems are identified, notify the Unit Armorer and repair or replace as necessary.

11.5 Assembly (HK High reliability 30-rd steel magazine)

CAUTION: Parts are under considerable spring pressure. Wear safety goggles and point the base of the magazine housing in a safe direction when disassembling or assembling. Read the complete procedure before attempting to disassemble the magazine.

To assemble the magazine, use the reverse sequence used for disassembly. If magazine was cleaned, ensure that it is properly lubricated prior to assembly. Attach the follower and locking plate (4) to the spring (2) and slide follower (1) into housing (3) (it will only assemble in one direction, do not force it). Push the locking plate (4) down into the housing enough so that you can place the floor plate tab into the recess (5), (using the side with the rubber bumper first). Let go of the locking plate and insert a cleaning rod into the window of the floor plate (6) and depress the locking plate while applying pressure rearward against the rubber bumper (7) so the locking tab (8) will enter the recess (9) in the front of the magazine **(Fig. 64 - 66)**.

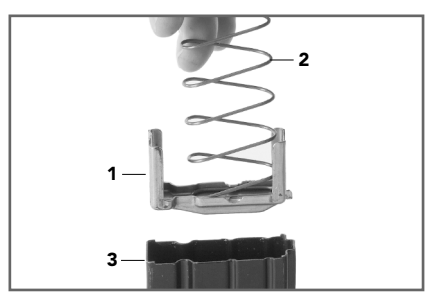


Fig. 64

Once the floor plate is assembled, make sure the locking plate is seated flush against the floor plate. Check the function of the magazine by tapping it on your hand. Also check the function of the follower, for free movement by depressing it with the cleaning rod. Lastly check the secure attachment to and fit of the magazine in the rifle.

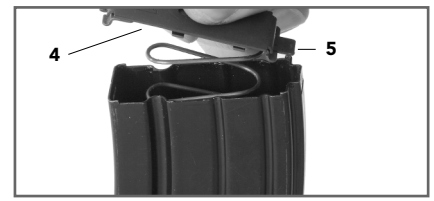


Fig. 65

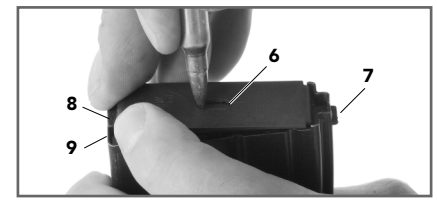


Fig. 66

11.6 Proper loading procedures for the HK High reliability steel magazine

Filling the magazine

1. Hold the magazine with one hand. Place the cartridges onto the follower between the magazine lips and push the cartridge, with your thumb, down underneath the lips and ensuring the projectile is facing the front of the magazine and that the cartridge rim is fully to the rear of the magazine **(Fig. 67 + 68)**.

2. Repeat this step until the magazine is filled with the correct number of cartridges (20 for 20-round magazine and 30 for 30-round magazines). With the magazine facing away from you, it will have a cartridge on the right side with the correct number of rounds when finished loading **(Fig. 69)**.
   If the last cartridge is on the left side, then there are too many rounds forced into the magazine.

Fig. 67: Loading first round into magazine

Fig. 68: Loading second round into magazine

Fig. 69: Incorrect loading of cartridges (31 rounds)

Emptying the magazine

Hold the magazine with one hand. Push the cartridges forward out of the magazine with the thumb of the other hand **(Fig. 70)**.
Do not allow the cartridges to drop on a hard surface or they may become damaged.
Do not unload cartridges using another cartridge, damage to the cartridge or injury to the operator may occur.

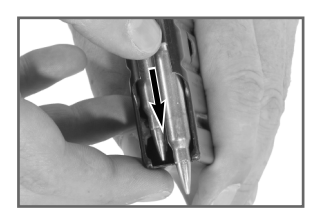


Fig. 70: Removing cartridges from the magazine

Single rounds

Magazines may be loaded with one round at a time by inserting the cartridge case in while depressing the follower and seating the case in until the projectile clears the front of the magazine. Continue this each time until the magazine is full. During and when finished filling the magazine gently tap the back of the magazine against the palm of your hand to ensure the rounds are seated properly **(Fig. 67 + 68)**.

10-round stripper clip

The magazine may be loaded quickly using the 10-round stripper clips and the stripper clip guide that is provided with each bandoleer of ammunition. With the magazine filler in place on the magazine, place a 10-round stripper clip in position **(Fig. 71 + 72)**.

CAUTION: It is possible to improperly load the cartridges if the guide is not positioned correctly, the rim of the cartridge could possibly get caught in the rear groove. Constantly check spring tension in between stripper clips. Unload magazine if in doubt. Replace the stripper clip guides regularly as they wear with use.

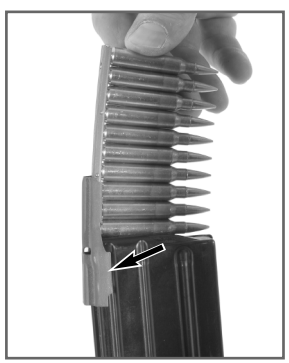


Fig. 71: Correct guide location

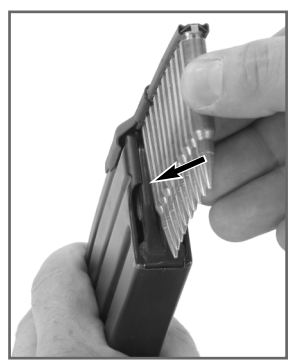


Fig. 72: Stripper clip correctly centered

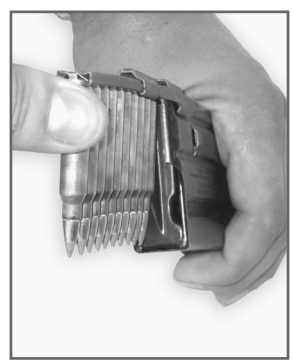


Fig. 73: Stripper clip off center

Using thumb pressure on the rear of the top cartridge **(Fig. 72)**, press down firmly until all ten rounds are below the feed lips of the magazine. Remove the empty stripper clip while holding the stripper clip guide in place. Repeat until the magazine is full. Remove stripper clip guide and retain it for future use.

Speed loader

Heckler & Koch does not warrant the use of alternate filling devices. Care should be taken when using non-approved devices in that damage may occur to the magazine that is not covered under warranty.

NOTE: Do not slam the magazine on a table or a fixed hard surface during filling or damage to the feed lips may occur. Instead apply gradual pressure to accomplish this task.

NOTE: Protect the magazines from drop-induced damage on hard surfaces (concrete, metal, etc.) during training by covering the ground with cardboard or carpet to cushion the impact. While the HK magazine is extremely durable even during rough handling, protecting arguably the most important component of the weapons system is wise and strongly recommended. Many weapon stoppages begin in feed devices that are not properly cared for or that are abused unnecessarily. Dedicated training magazines for practicing combat reloads wherein the magazine is repeatedly dropped are also highly recommended.

12.1 Installing the optional HK Diopter rotary sight set

The HK Diopter sights are installed on the MIL-STD 1913 rail with a Phillips #2 screwdriver or the HK sight tool. Do not over tighten the screws. Sight adjustment is as follows.

12.2 Installing the fold down front sight

Press front sight onto front sight holder until the axes holes of front sight and front sight holder are aligned. Push trough front sight axles all the way, from the right to the left and secure the front sight axles by snapping the retaining clip. Check function of foldable front sight.

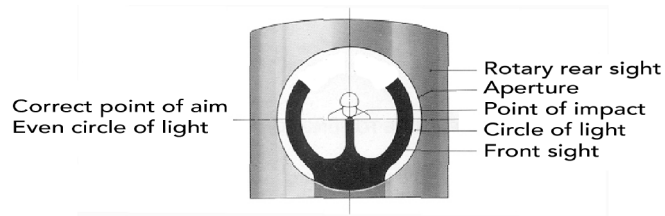


Fig. 74 Correct position of the front sight

Sight Adjustment

- The HK416 diopter sights are calibrated for US M855 or NATO SS109 type ammunition. Results may vary with other types of ammunition.
- The rear sight drum has diopters marked "1", "2", "3" and "4"
- The rifle should be sighted-in at 100 meters using the #1 diopter. The top of the front sight blade should be centered in the diopter.
- If the shooter's target is at 200 meters, the drum should be rotated so the "2" diopter is now facing the shooter's eye. The diopter has been moved up to compensate for the extra 100 meters.
- The "3" diopter should be used for 300 meters and the "4" for 400 meters.
- In effect, once the rifle is sighted-in at 100 meters with the #1 diopter, the rifle is also sighted-in @ 200, 300 and 400 meters.
- Sighting through any of the diopters, the shooter should obtain an equal halo of light around the front sight mount positioning the front sight blade in the center.

NOTE: Below the #2 on the diopter, there is a single dot that signifies it is for the 10.4" HK416 and a double dot signifies it is for the 14.5" and/or 16.5" HK416.

The sights on the HK rifles can be adjusted for elevation and windage.

Sight adjustment tool

There are two parts to the sight adjustment tool.

- A short shank Phillips head screwdriver
- The spring loaded tab assembly

12.3 Sight adjustments

REMEMBER THIS FORMULA: LL=C (Lower or Left = Clockwise rotation)

The sight adjustment is a rear sight adjustment, so the movement of the sight will be in the same direction the shooter wants the impact of the round to move. If the hit is to the right of the intended location, then the sights and the impact must be moved left.

- Any corrections which may be required when sighting-in the weapon may only be performed by adjusting the rear sight for elevation or windage.
- HK416 is designed to be sighted in at range of 100 m.

ELEVATION ADJUSTMENT:

Insert elevation adjustment tool into the rear sight cylinder so that the wedges of the tool engage in the two slots in the cylinder which contain the catch bolts.
Press Phillips-head screwdriver downward into the adjustment tool and hold firmly.
Rotate rear sight cylinder manually in the desired direction **(Fig. 75)**.

After correction withdraw Phillips-head screwdriver and remove elevation adjustment tool. The catch bolts will then re-engage in the slots. After performing the elevation adjustment set the desired aperture again.

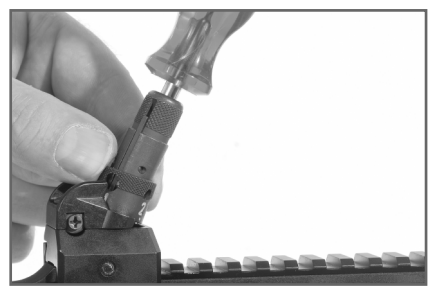


Fig. 75 Elevation adjustment

NOTE: One-quarter turn of the rear sight drum will move the impact of the round approximately 3.8 cm (1.5 inches) at 100 m.

WINDAGE ADJUSTMENT:

Point of impact, left: Loosen clamping screw on top of sight base **(Fig. 76)**. Turn adjusting screw on the right side counter-clockwise **(Fig. 77)** in accordance with the required correction. Then retighten clamping screw. This will move the impact to the Right.

Fig. 76 Loosening the clamping screw

Point of impact, right: Loosen clamping screw **(Fig. 76)**. Turn adjusting screw clockwise **(Fig. 77)** until the required correction has been performed. Then retighten clamping screw. This will move the impact to the Left.

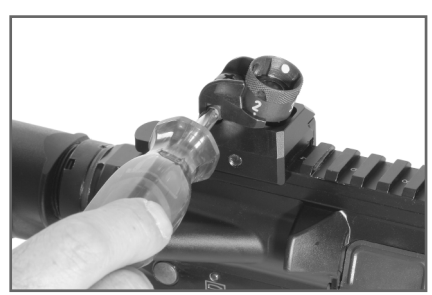


Fig. 77 Rotating the windage adjusting screw

NOTE: Each revolution of the Windage screw will move the impact of the round 15.2 cm (6 inches) at 100 m.

13.1 Safety Blank Firing Adapter (SBFA)

The Safety Blank Firing Adapter (in addition to the Safety Blank Firing Magazine, **(Fig. 78 - 80)**) can easily be installed by the operator. When correctly installed on the HK original flash suppressor the SBFA is designed to capture up to three live-rounds to enhance safety. The operator can install the SBFA by unscrewing the threaded nut until the bracket can be slipped over the compensator and inserted into the locking recess. The threaded nut can then be tightened. The nut should be tight and constantly checked in between firing to ensure it stays tight. Tighten as necessary. The Safety Blank Firing Magazine must be used with blank ammunition to ensure safety of the shooter and bystanders.

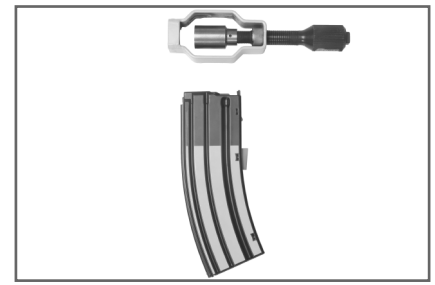


Fig. 78

Fig. 79

Fig. 80

13.2 Ammunition

To avoid possible explosion and injury, do not fire:

- Cartridges that are not 5.56 mm x 45.
- Seriously corroded ammunition.
- Dented Cartridges.
- Cartridges with loose bullets.
- Cartridges exposed to extreme heat above 135°F (57°C) until they have cooled.
- Blank ammunition toward personnel within 6 m (20 feet) or less from the muzzle, because fragments of a closure wad or particles of unburnt propellant might inflict injury within that range, unless using the HK Safety Blank Firing Adapter (SBFA).
- Use only authorized ammunition that is manufactured to NATO specs.
- Keep ammunition dry and clean. Your life depends on it.

The HK416 has front sling attachment points on the left and right sides of the gas block **(Fig. 81)**. The stock has the rear lower sling swivel **(Fig. 82)** and/or a top mounted swivel strap **(Fig. 83)** for the sliding butt-stock. The snap hook on the sling has a tool that will fit into the screw head of the Free Floating Rail System or One-Piece Handguard for removal and installation **(Fig. 84)**. **Figure 85** illustrates the multi-purpose sling attached to the HK416.

Fig. 81

Fig. 82

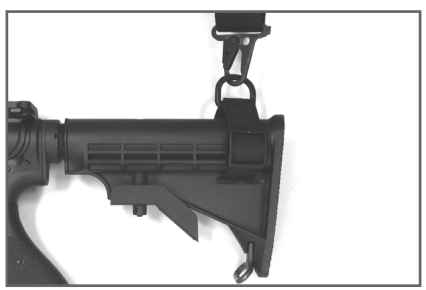


Fig. 83

Fig. 84

Fig. 85

15.1 Steps of functioning

The eight steps of functioning begin after the loaded magazine has been inserted into the weapon and is a re-occurring sequence of mechanical events, which take place in the operation of an automatic-loading firearm. The HK416 is designed to function in either the semi-automatic or automatic mode.

1. LOADING: Inserting a loaded magazine into the magazine well.

A loaded magazine can be inserted into the magazine well with the bolt forward or to the rear, unless 31 rounds are loaded in the magazine. When the magazine is seated fully into the magazine well, the magazine catch/release will engage the recess in the magazine. If the bolt is not to the rear, pull the charging handle to the rear and press the bolt catch/release to lock the bolt to the rear or to start feeding, release the charging handle **(Fig. 86)**.

NOTE: Do not ride the charging handle forward or the bolt may not fully chamber the round.

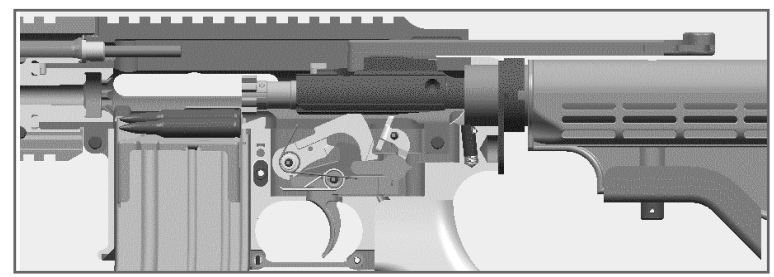


Fig. 86

2. FEEDING: Removing a round from the magazine.

As the bolt moves forward under the pressure of the expanding recoil spring, the bottom locking lugs on the bolt head ride between the lips of the magazine stripping a round out of the magazine and feeding it into the chamber **(Fig. 87)**.

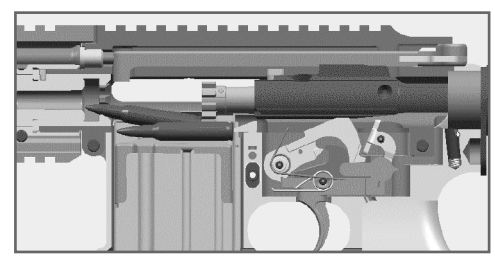


Fig. 87

3. CHAMBERING: Placing the round into the chamber of the barrel and seating it fully.

The bolt pushes the round forward into the chamber until the shoulder of the cartridge comes to rest at the end of the chamber (headspace). As the round is in the final stages of chambering the bolt carrier contacts the release lever of the trigger group and the hammer starts to fall, but the sear is in the way and the sear notch of the hammer engages the sear **(Fig. 88)**.

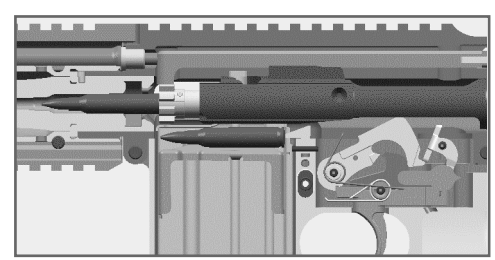


Fig. 88

4. LOCKING: Closing and locking of the bolt locking lugs prior to the ignition of the cartridge.
The bolt, being pushed by the recoil spring, continues to apply pressure to the base of the cartridge until the extractor snaps over the rim of the case and the bolt closes, rotates and locks completely **(Fig. 89).**

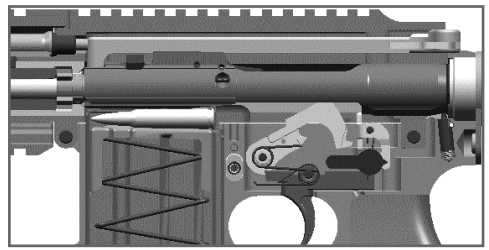


Fig. 89

5a. FIRING IN THE SEMI-AUTOMATIC MODE: Ignition of the propellant powder. The trigger is pulled and pushes down on the hammer notch until it releases the cocked hammer forward. The hammer disengage the firing pin safety falls to the firing pin and strikes the primer.

The primer detonates, igniting the propellant powder and firing occurs. The bolt cycles to the rear, cocks the hammer and hits the buffer. When the bolt cycles to the front whilst the trigger is still actuated, the disconnector captures the forward moving hammer at the disconnector notch on the hammer.

When the trigger is released, the spring loaded hammer snaps from the disconnector notch into engagement with the trigger on the hammer notch. This setting of the disconnector prevents from continuous firing in the SEMI-AUTOMATIC MODE.

After disengagement from the hammer, the disconnector is reset and pivots to the front by the pressure of the disconnector spring. When the bolt has cycled to the front, the forward moving hammer is again captured by the disconnector as long as the trigger is pulled. Upon release of the trigger, the hammer snaps again from the disconnector notch into engagement with the trigger on the hammer notch. This cycle is continuously repeated in the SEMI-AUTOMATIC setting of the safety/fire control lever.

With the safety/fire selector lever in the SEMI-AUTOMATIC setting, a cam on the selector lever swivels the sear out of contact with the bolt carrier **(Fig. 90)**.

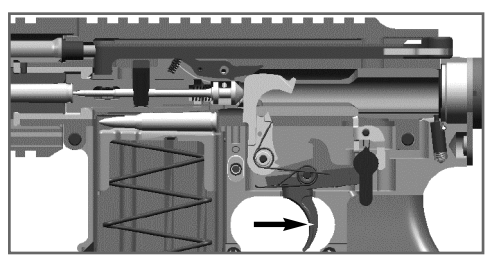


Fig. 90

5b. FIRING IN THE AUTOMATIC MODE

When the safety/fire selector lever is set at "AUTOMATIC" a cam on the safety/fire selector axle permits the spring loaded sear to swivel into contact with the rear bottom of the bolt carrier. Another cam on the safety/fire selector axle lowers the rear of the disconnector and pushes the disconnector against the disconnector spring.

This moves the disconnector completely out of engagement with the disconnector notch on the hammer whereby the hammer is only controlled by the sear as long as the trigger is pulled.
This sear is only actuated by the forward moving bolt carrier which releases the hammer after the bolt has moved forward all the way and locked. Upon release of the trigger, the forward moving hammer will be caught on the hammer notch by the sear and firing will be stopped.

When squeezing the trigger again the full auto cycle repeats until the trigger is released or until there is no more ammunition in the magazine.

6. UNLOCKING: As the bolt carrier moves to the rear, the bolt cam pin follows the path of the cam track (located on the bolt carrier). This action causes the cam pin and bolt assembly to rotate at the same time until the locking lugs of the bolt are no longer behind the locking lugs of the barrel extension **(Fig. 91)**.

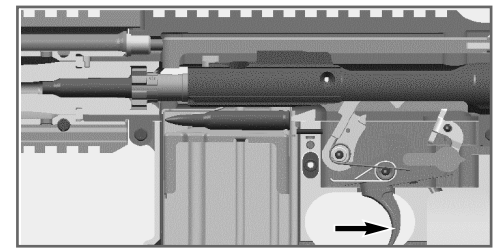


Fig. 91

7. EXTRACTION: The removal of a fired cartridge case, or a round from the chamber.

As the bullet is leaving the cartridge case, expanding gases pressurize the inside of the case and push it against the chamber. Once the bolt cycles to the rear during the unlocking phase, the extractor holds the cartridge/case on its rim and pulls the case to the rear until it is ejected by the spring loaded plunger **(Fig. 92)**.

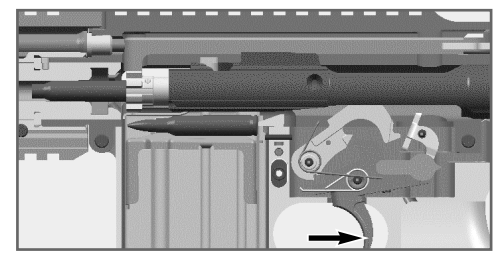


Fig. 92

4. LOCKING: Closing and locking of the bolt locking lugs prior to the ignition of the cartridge.

The bolt, being pushed by the recoil spring, continues to apply pressure to the base of the cartridge until the extractor snaps over the rim of the case and the bolt closes, rotates and locks completely **(Fig. 89)**.

8. EJECTION: Expulsion of the round or fired cartridge case from the weapon.

The extractor holds the empty case to the face of the bolt head as it travels to the rear. The bolt carrier rides rearward while the ejector is constantly pushing the case forward under spring pressure. When the front of the cartridge case reaches the ejection port opening, the ejector pushes the case to the right and it contacts the case deflector and is ejected from the weapon **(Fig. 93)**

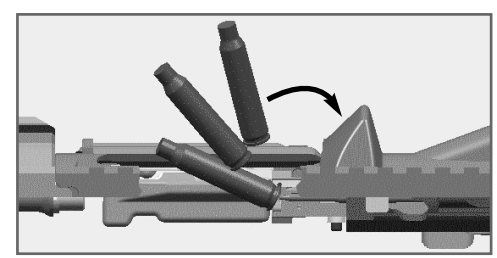


Fig. 93

SETTING THE SAFETY/FIRE SELECTOR LEVER AT "SAFE"

Setting the safety/fire selector lever at "SAFE" is only possible when the hammer is cocked.
When the safety/fire selector lever is set at "SAFE" a cam on the selector axle pushes down the rear extension of the trigger and prevents the front of the trigger from being disengaged from the hammer notch.

16.1 HK416 - Malfunctions and corrections

Operators are responsible for keeping their HK416 clean and operational at all times – in training and in combat. Therefore, the operator should be issued an operator's manual and cleaning equipment for the assigned weapon.

The following are guidelines that can help in identifying and solving problems. Many weapon system problems are very often related to incorrect operator use or maintenance, faulty ammunition and/or problems in the weapon. These areas should be checked for problems at the same time the magazine is inspected. If the same problem exists with more than one magazine, then more than likely it is a rifle, operator or ammunition problem. When problems do occur, mark/identify the suspect magazine with a tag or paint/grease pen and use the chart in the magazine section of this manual **(section 16.2, pg. 40)** as a guideline.

Stoppage

A stoppage is a failure of an automatic or semi-automatic firearm to complete the cycle of operation. The operator can apply immediate or remedial action to clear the stoppage. Some stoppages that cannot be cleared by immediate or remedial action could require weapon repair to correct the problem. A complete understanding of how the weapon functions is an integral part of applying immediate-action procedures.

Immediate Action

This involves quickly applying corrective actions to reduce a stoppage based on initial observation or indicators but without determining the actual cause. To apply immediate action, the operator would perform these steps:

- Gently slap upward and tug downward on the magazine to ensure it is fully seated.
- Pull the charging handle fully to the rear and check the chamber (observe for the ejection of a live or expended cartridge).
- Release the charging handle (do not ride it forward).
- Strike the forward assist assembly to ensure bolt closure.
- Try to fire the rifle.

Apply immediate action only one time for a given stoppage. Do not apply immediate action a second time. If the rifle still fails to fire, clear the weapon and inspect it to determine the cause of the stoppage or malfunction and take appropriate remedial action.

Remedial Action

Remedial action is the continuing effort to determine the cause for a stoppage or malfunction and to try to clear the stoppage once it has been identified.

WARNING: If an audible "pop" or reduced recoil occurs during firing, immediately cease firing. This pop or reduced recoil can be the result of a round being fired without enough force to send the projectile out of the barrel. Do not apply immediate action. Remove the magazine, lock the bolt to the rear, and place the selector lever in the safe position. Visually inspect the bore to ensure a projectile is not lodged in the barrel. If a projectile is lodged in the barrel, do not try to remove it. Turn the weapon in to the armorer.

16.2 HK High reliability 30-rd steel magazine - Malfunctions and corrections

Problems that could exist between the rifle and magazine, areas of inspection and remedies:

Filled magazine cannot be inserted and locked in place in the rifle with the bolt forward:
31-rounds are present in the magazine. Remove one round.

Rounds do not feed from magazine/follower stuck in housing:
Improper loading procedure applied with stripper clip and guide. Remove all rounds and refill the magazine correctly.

Maritime surface coating is worn:
The Maritime coating is a 3-part finish. In the event the top painted finish is scratched or worn the material coating will continue to protect the magazine against corrosion.

Magazine does not stay in rifle, or falls out when firing:
Check magazine catch on rifle and insure it is screwed in to the magazine release button and adjusted properly, check for worn or damaged parts (see applicable Operator Manual). Inspect magazine catch area of magazine for burrs and excessive wear. Turn into Unit Armorer for repair.

NOTE: On this magazine the engagement notches for the magazine catch is CLOSED to prevent the intrusion of sand and dust. This improves reliability in harsh environments.

Bolt will not lock to the rear after last round is fired:
Check bolt catch on rifle for worn or damaged part. Check follower at the rear contact area, replace if defective. Check magazine spring tension and replace if weak. Turn into Unit Armorer for repair.

Magazine will not hold specified number of rounds of ammunition:
Check that the magazine is properly assembled and there is no debris inside of the magazine. Check for dents on magazine housing. Turn into Unit Armorer for repair/replacement.

Failure to properly feed ammunition into the chamber (failure to feed, double feed):
Inspect rifle as per Operator´s Manual. Rifle should be clean, properly lubricated; (bolt rings are adjusted and serviceable). If problem only exists with one magazine, inspect the feed lips for bends, cracks or incorrect spacing. Check spring tension; check for free movement of follower in housing or dents in sides of housing or more than 30-rounds of ammunition in magazine. Check for dirty and/or corroded ammunition. Turn into Unit Armorer for repair.

Floor plate pops off while shooting or if magazine is dropped:
Check for proper assembly and presence of rubber bumper (Contact HK if bumper is missing). Make sure floor plate is not bent and locking plate locks in place. Insure rubber bumper is not worn or deformed. Turn into Unit Armorer for repair.

16.3 Troubleshooting list

This section contains operator level troubleshooting information for locating and correcting most of the operating troubles which may develop in the HK416 family. Each malfunction for the individual part or assembly is followed by a list of tests or inspections which will help you to determine the corrective actions in the order listed. This manual cannot list all malfunctions that may occur, or all tests or inspections and corrective actions.

If a malfunction is not listed or is not corrected by listed corrective actions, see individual repair sections in the maintenance procedures on each major assembly. Refer to troubleshooting table for malfunctions, tests, and corrective actions. The symptom index is provided for a quick reference of the malfunctions covered in the table. The HK416 must always be treated as if loaded until the stoppage has been cleared. The following list does not include all potential causes and/or corrective actions. Other causes than those indicated below may be encountered.

Malfunction	Probable Cause	Corrective Action
Failure of magazine to lock in rifle.	Dirty or corroded magazine catch.	Disassemble and clean.
	Worn or broken magazine catch.	Evacuate to unit armorer.
	Defective magazine catch spring.	Evacuate to unit armorer.
Failure to feed.	Short recoil.	Refer to short recoil.
	Magazine catch out of adjustment (will not retain magazine).	Refer to operator´s manual, adjust magazine catch.
	Magazine catch spring weak or broken.	Evacuate to unit armorer.
	Magazine catch defective.	Evacuate to unit armorer.
	Magazine improperly filled.	Remove rounds and reinsert (Sec.11.6)
Failure to chamber.	Short recoil.	Refer to short recoil.
	Weak or broken recoil spring.	Evacuate to unit armorer.
Failure to lock.	Improperly assembled extractor spring assembly.	Assemble correctly.
	Bolt cam pin missing.	Evacuate to unit armorer.
	Bent piston rod.	Evacuate to unit armorer.
	Weak or broken recoil spring.	Evacuate to unit armorer.
Failure to fire.	Carbon buildup in firing pin recess inside bolt assembly.	Remove firing pin & clean recess with pipe cleaner. Refer to operator's manual under cleaning.
	Broken or chipped firing pin.	Evacuate to unit armorer.
	Broken, defective, or missing firing pin retaining pin.	Evacuate to unit armorer.
	Firing mechanism and or lower receiver assembly improperly assembled or has worn, broken, or missing parts.	Evacuate to unit armorer.

Malfunction	Probable Cause	Corrective Action
Failure to unlock.	Short recoil.	Refer to short recoil.
	Burred locking lugs on bolt assembly.	Evacuate to unit armorer.
	Burred lugs on barrel extension.	Evacuate to unit armorer.
Failure to extract.	Defective extractor pin, extractor, and/or extractor spring assembly.	Evacuate to unit armorer.
Failure to eject.	Short recoil.	Refer to short recoil.
	Ejector stuck in bolt body.	Evacuate to unit armorer.
	Broken ejector.	Evacuate to unit armorer.
	Weak or broken ejector spring.	Evacuate to unit armorer.
Failure to cock.	Short recoil.	Refer to short recoil.
	Worn, broken, or missing parts of firing mechanism.	Evacuate to unit armorer.
Short recoil.	Unlubricated or dirty recoil spring and receiver extension.	Clean and lubricate.
	Broken or damaged recoil spring.	Evacuate to unit armorer.
	Worn, missing, or broken piston rings.	Evacuate to unit armorer.
Rifle cannot be zeroed.	Loose front/rear sight base.	Tighten bases down.
	Defective rear sight assembly.	Evacuate to unit armorer.
	Defective front sight.	Evacuate to unit armorer.
	Defective barrel assembly. Barrel assembly out of alignment with rear sight assembly on upper receiver. Loose barrel.	Evacuate to unit armorer.
Failure to cycle with selector lever set on AUTOMATIC.	Faulty selector lever.	Evacuate to unit armorer.
	Faulty Auto sear.	Evacuate to unit armorer.
Fires two rounds with one pull of trigger with selector lever set on SEMI-AUTOMATIC (double firing).	Soft primer on Ammo.	Use only NATO Ammo.
	Worn, broken, or missing parts of firing mechanism.	Evacuate to unit armorer.
Fires with selector lever on SAFE or when trigger is released with selector lever on SEMI-AUTO	Worn, broken, or missing parts of firing mechanism.	Evacuate to unit armorer.

Malfunction	Probable Cause	Corrective Action
Bolt assembly fails to lock to rear after firing last round.	Magazine improperly loaded.	Remove and replace rounds.
	Magazine lips bent or broken.	Replace magazine.
	Magazine follower binds during operation.	Replace magazine.
	Magazine follower worn or broken.	Replace magazine.
	Magazine catch spring weak or broken.	Evacuate to unit armorer.
	Broken bolt catch and/or spring.	Evacuate to unit armorer.
Magazine follower binds during operation.	Magazine housing dented.	Replace magazine.
	Magazine improperly loaded.	Remove rounds and reinsert (Sec 11.6)

NOTE: Only authorized personnel may perform armorer procedures outlined in the manual.

1. Cleaning Kit **(Fig. 94/1)**
2. Blank Firing Safety Magazine **(Fig. 94/2)**
3. HK High reliability 30-rd steel magazine **(Fig. 94/3)**
4. Folding Front Sight **(Fig. 94/4)**
5. HK Diopter Rotary Front and Rear Sight Set (for **10.4"** and **14.5"** + **16.5"** Barrels **(Fig. 94/5)**)
6. HK Sight Adjustment Tool **(Fig. 94/6)**
7. Safety Blank Firing Attachment (SBFA) **(Fig. 94/7)**
8. HK Sling with hand guard removal tool and strap (sling; Ident.-No. 233 158, strap; Ident.-No. 979 450) **(Fig. 94/8)**
9. Forward Grip **(Fig. 95)**
10. Scope Mount (for Aimpoint M68 red dot scope **(Fig. 96)**)
11. Tactical Light **(Fig. 97)**
12. HK AG416 Add-On Grenade Launcher **(Fig. 98)**

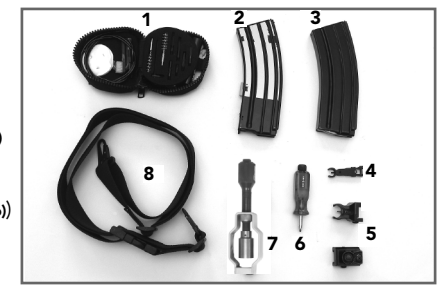


Fig. 94

Fig. 95

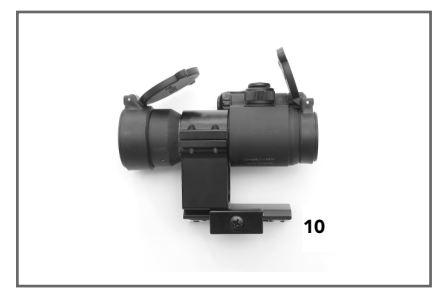


Fig. 96

Fig. 97

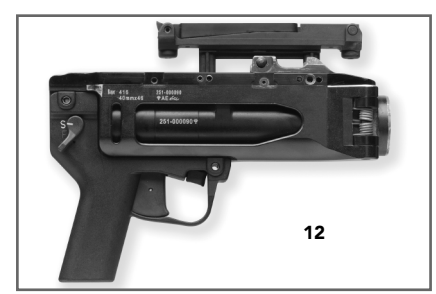


Fig. 98

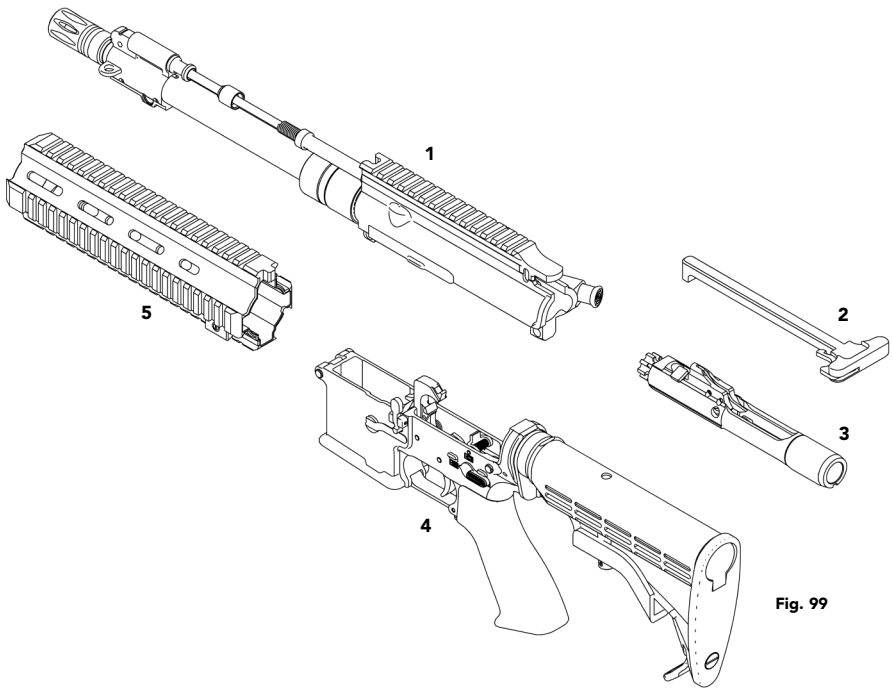


Fig. 99

HK416 Weapon Models, compl. **(consists of: see section 6)**

Illust.#	Ident.-Number	Description	Drawing-Number
--	233 668	HK416 D10RS	94564
--	233 711	HK416 D14.5RS	94566
--	234 673	HK416 D16.5RS	94572
--	234 674	HK416 D20RS	94573

HK416 Assembly groups

Illust.#	Ident.-Number	Description	Drawing-Number
1	233 658	Upper Receiver **10.4"**, compl. w/o FFRS, bolt carrier + handle	94548-100
(1)	203 555	Upper Receiver **14.5"**, compl. w/o FFRS, bolt carrier + handle	94455-100
(1)	currently not available	Upper Receiver **16.5"**, compl. w/o FFRS, bolt carrier + handle	not available
(1)	currently not available	Upper Receiver **20"**, compl. w/o FFRS, bolt carrier + handle	not available
2	203 597	Handle Charging Assembly, compl.	94454-700
3	233 670	Bolt Carrier Assembly, compl.	94564-200
4	233 113	Lower Receiver, compl. assembled with buffer + spring	94454-400
5	233 184	Free Floating Rail System (FFRS), compl.	94454-145

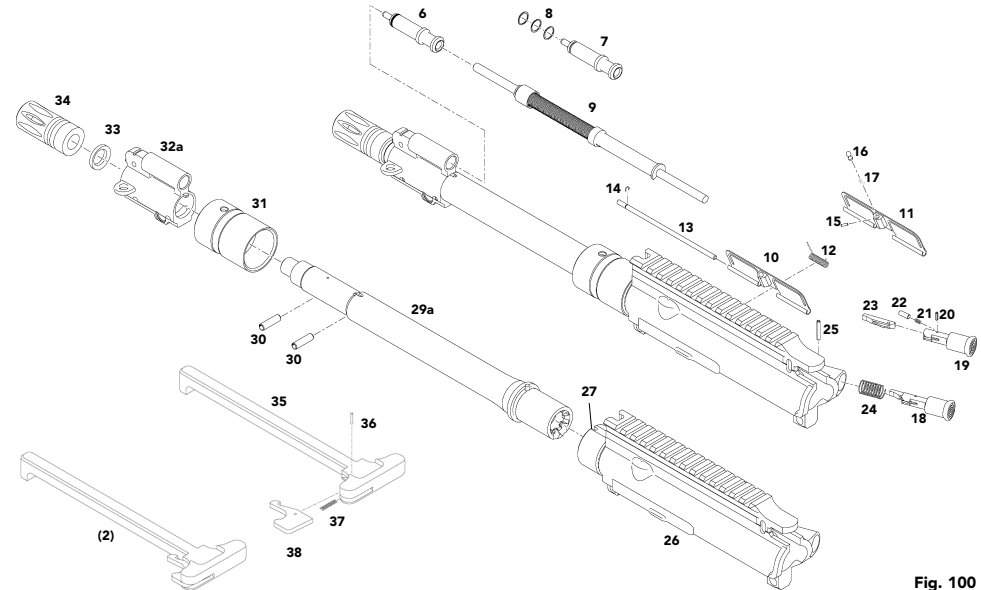


Fig. 100

Upper receiver

Illust.#	Ident.-Number	Description	Drawing-Number
6	205 381	Gas Piston, compl.	94095-115
7	205 382	Gas Piston	94095-115.01
8	205 383	Piston, Ring (3 each)	94095-115.02
9	203 648	Piston Rod Assembly	94454-140
10	203 626	Cover, Ejection Port Assembly, compl.	94454-112
11	203 627	*Cover, Ejection Port	94454-111
12	203 632	Spring, Ejection Port Cover	94454-100.01
13	203 633	Pin, Ejection Port Cover	94454-100.02
14	979 358	Safety Ring, Ejection Port Cover, .125"	ASME B18.27.2-0.25 Shaft
15	979 290	*Pin, Lock Bolt (1/16"x3/16")	ASME B18.8.2-SLTP
16	203 629	*Lock Bolt	94454-111.02
17	203 630	*Spring Lock Bolt	94454-111.01
18	203 599	Plunger Assembly, compl.	94454-120
19	203 600	*Forward Assist Assembly	94454-121
20	979 293	*Pin, Plunger Forward Assist (1/16"x1/4")	ASME B18.8.2-SLTP
21	203 636	*Spring, Pawl Forward Assist	94454-120.02
22	203 637	*Detent Pawl, Forward assist	94454-120.03
23	203 601	*Pawl, Forward Assist	94454-120.04
24	203 635	Spring Plunger, Forward Assist	94454-100.04
25	979 313	Pin, Forward Assist (3/32"x5/8")	ASME B18.8.2-SLTP
--	203 598	Upper Receiver Assembly (consists of Item 26+27)	94454-110
26	203 567	Upper Receiver	94454-110.01
27	203 576	Threaded Bushing, Piston Guidance	94454-110.02
29a	233 660	Barrel, **10.4"** Threaded, Assembled	94548-310
30	979 245	Pin, Gas Block (2 each)	ISO 8748-5x18
31	203 580	Nut, Barrel	94454-300.03
32a	203 587	Gas Block **10.4"**	94454-300.06
33	203 647	Washer, Crush	94454-300.08
34	233 106	Compensator	94454-300.12

Charging Handle

35	203 596	*Handle Charging	94454-700.01
36	979 291	*Pin Spring, Handle Charging (3/32x1/4)	ASME B18.8.2-SLTP
37	203 640	*Spring, Handle Charging, Catch	94454-700.02
38	203 641	*Catch, Handle Charging	94454-700.03

* Included in assembly

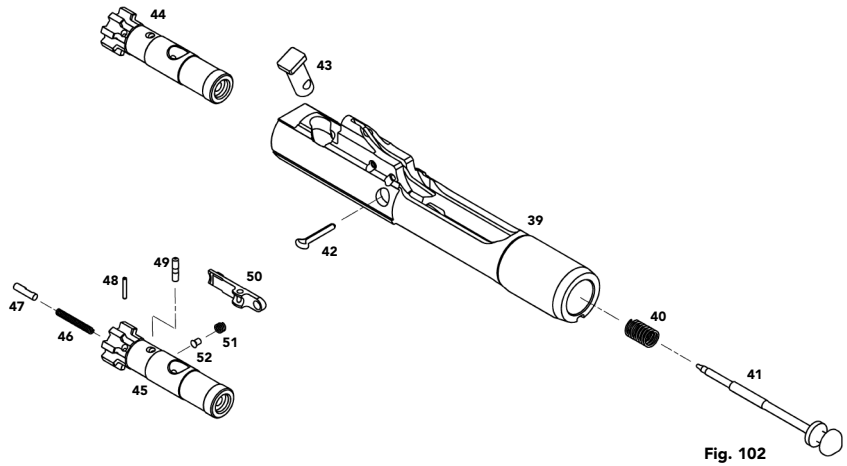


Fig. 102

Bolt Carrier Assembly

Illust.#	Ident.-Number	Description	Drawing-Number
--	233 670	Bolt Carrier Assembly, compl.	94564-200
39	233 673	Bolt Carrier	94564-201
40	233 674	Compression Spring, Firing Pin	94564-200.01
41	233 703	Firing Pin	94564-200.03
42	203 564	Pin, Retaining, Firing Pin	94454-200.04
43	233 112	Bolt Cam Pin	94454-200.02
44	233 672	Bolt Assembly, compl.	94564-220
45	233 709	Bolt, Head	94564-220.01
46	233 110	Spring, Ejector	94454-220.07
47	233 109	Ejector	94454-220.08
48	929 081	Pin, Ejector (5x10)	ISO 8752-1, 5x10
49	203 569	Pin, Extractor	94454-220.05
50	233 108	Extractor, Cartridge	94454-220.04
51	205 407	Compression Spring, Extractor	94095-123.03
52	207 779	Buffer, Extractor	94316-412.06

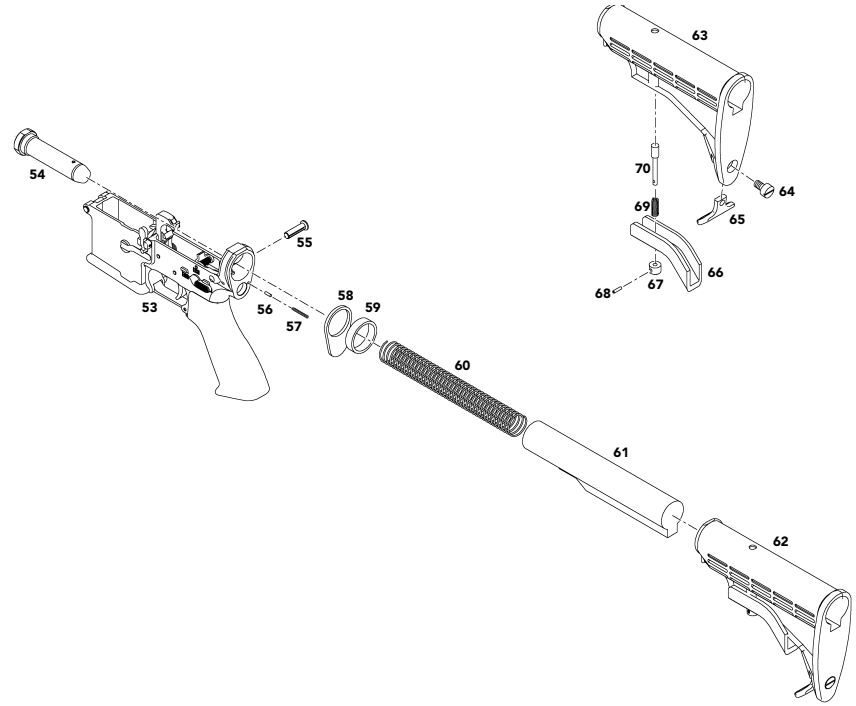


Fig. 103

Lower Receiver Assembly

Illust.#	Ident.-Number	Description	Drawing-Number
--	233 113	Lower Receiver, compl. assembled with buffer + spring	94454-400
53	233 181	Lower Receiver HK416D, Assembled	94454-410
54	203 570	Buffer, compl.	94454-600
55	233 117	Pin, Takedown	94454-410.05
56	233 115	Detent, Takedown Pin (2 each)	94454-410.03
57	233 116	Spring, Takedown (2 each)	94454-410.02
58	233 164	Plate, Receiver End	94454-400.03
59	233 165	Nut, Receiver Extension	94454-400.02
60	233 166	Spring, Recoil	94454-400.04
61	233 167	Extension Receiver	94454-400.01
62	233 171	Sliding Buttstock Assembly, compl.	94454-501.00.
63	233 172	*Buttstock Sliding	94454-501.01
64	233 179	*Screw, Swivel	94454-501.08
65	233 178	*Swivel	94454-501.07
66	233 175	*Lever, Release	94454-501.04
67	233 176	*Nut, Lock Pin	94454-501.05
68	979 295	*Pin, Nut (5/64"x3/8")	ASME B18.8.2-SLTP
69	233 174	*Spring, Lock Index	94454-501.02
70	233 173	*Pin, Lock Index	94454-501.03

* Included in assembly

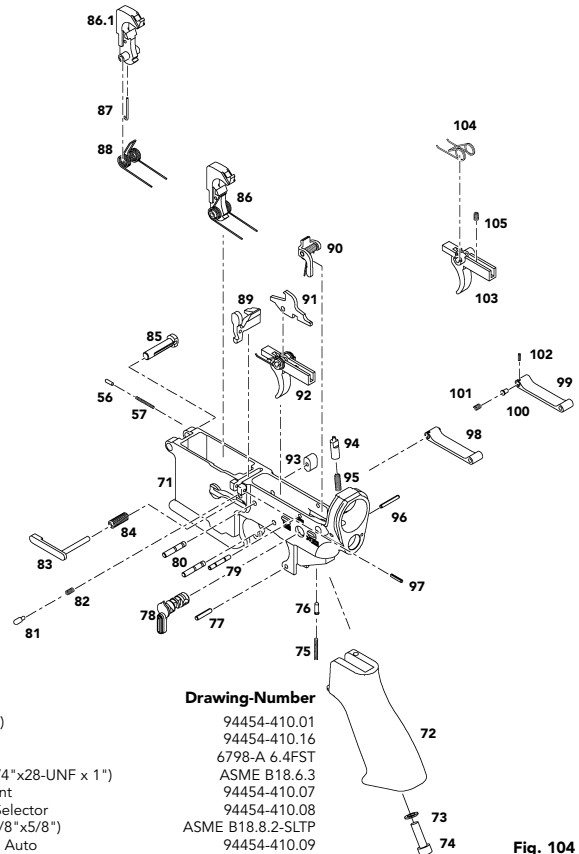


Fig. 104

Lower Receiver, Exploded

Illust.#	Ident.-Number	Description	Drawing-Number
71	203 591	Receiver, Lower (Auto)	94454-410.01
72	233 160	Pistol Grip	94454-410.16
73	979 243	*Lock WasherDIN	6798-A 6.4FST
74	979 355	*Screw, Pistol Grip (1/4"x28-UNF x 1")	ASME B18.6.3
75	233 136	Spring, Selector Detent	94454-410.07
76	233 135	Detent, Fire Control Selector	94454-410.08
77	979 294	Pin, Guard, Trigger (1/8"x5/8")	ASME B18.8.2-SLTP
78	233 134	Selector, Fire Control, Auto	94454-410.09
79	233 141	Pin, Automatic Sear	94454-414.04
80	233 152	Pin, Trigger & Hammer (2x)	94454-410.25
81	233 131	Plunger, Bolt Catch	94454-410.12
82	233 132	Spring, Bolt Catch	94454-410.11
83	233 123	Catch Magazine Assembly	94454-411
84	233 126	*Spring, Magazine Catch	94454-410.21
85	233 114	Pin, Receiver Pivot	94454-410.04
86	233 142	Hammer, Auto, Assembly	94454-415
86.1	233 143	Hammer, Auto	94454-415.01
87	233 144	Retainer, Hammer Pin	94454-415.03
88	233 145	Spring, Hammer	94454-415.02
89	233 129	Bolt Catch	94454-410.13
90	233 137	Sear Automatic Assembly.	94454-414
91	233 151	Disconnector, Auto	94454-413.04
92	233 147	Trigger Assembly., Auto	94454-413
93	233 127	*Button, Magazine Release	94454-410.22
94	233 120	Retainer, Buffer	94454-410.19
95	233 121	Spring, Buffer, Retainer	94454-410.18
96	986 544	Pin, Retainer, Buffer (2.5x20-ST)	ISO 8750
97	979 292	Pin, Bolt Catch (3/32"x1/2")	ASME B18.8.2-SLTP
98	233 153	Guard, Trigger Assembly, compl.	94454-412
99	233 154	*Guard Trigger	94454-412.01
100	233 155	*Plunger Trigger Guard	94454-412.03
101	233 156	*Spring Trigger Guard	94454-412.02
102	979 293	*Pin, Plunger, Trigger Guard (1/16"x1/4")	ASME B18.8.2-SLTP
103	233 148	*Trigger, Auto	94454-413.01
104	233 150	*Spring Trigger	94454-413.02
105	233 149	*Spring, Disconnect	94454-413.03

* Included in assembly

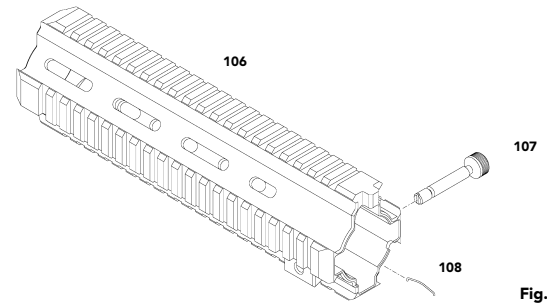


Fig. 105

Free Floating Rail System (FFRS)

Illust.#	Ident.-Number	Description	Drawing-Number
106	233 185	Free Floating Rail	94454-147
107	233 187	Screw, FFRS	94454-145.02
108	233 186	Shaped Spring, FFRS	94454-145.01

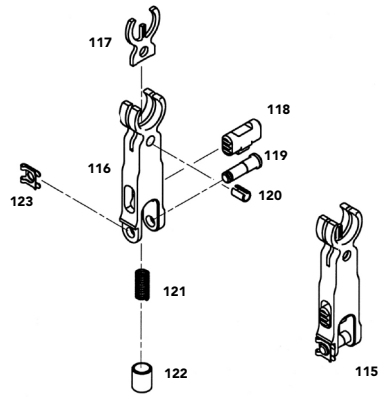


Fig. 107

Folding front sight (Front sight assembly) All models

Illust.#	Ident.-Number	Description	Drawing-Number
115	203 622	Folding Front Sight, compl.	94454-153
116	203 623	Base, Folding Front Sight	94454-153.01
117	203 620	Front Sight Blade, Folding Front Sight	94454-153.02
118	203 624	Detent Plunger, Folding Front Sight	94454-153.03
119	203 642	Axle, Folding Front Sight	94454-153.07
120	979 397	Spring Pin, Folding Front Sight	ISO 8752 4x6
121	203 588	Compression Spring, Folding Front Sight	94454-153.06
122	203 625	Plunger, Folding Front Sight	94454-153.04
123	986 551	Retaining Clip, Folding Front Sight	4 MBO 08

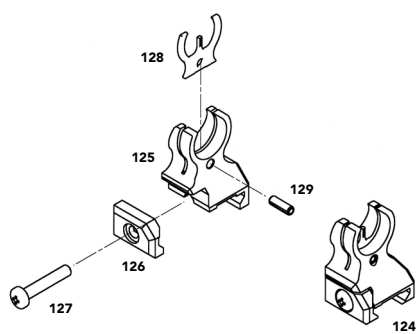


Fig. 108

Mechanical sight (Front sight assembly) All models

Illust.#	Ident.-Number	Description	Drawing-Number
124	233 210	Front Sight Assembly, compl.	94485-155
125	233 211	Base, Front Sight	94485-155.01
126	203 634	Clamp Jaw, Front Sight	94485-155.03
127	203 643	Clamp Screw, Sight Base	94485-155.06
128	233 212	Front Sight Blade	94485-155.02
129	922 609	Roll Pin, Front Sight	ISO 8752 4x12

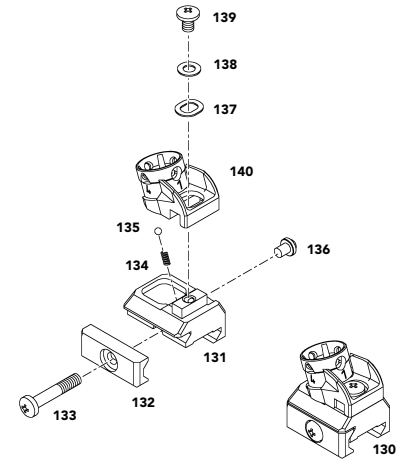


Fig. 109

Mechanical sight (Rear sight assembly), for 10.4" barrel model (one dot)

Illust.#	Ident.-Number	Description	Drawing-Number
130	203 621	Rear Sight, **10.4"** complete	94485-150
131	203 618	Sight Base, Rear Sight	94485-150.01
132	203 619	Clamp Jaw, Rear Sight Base	94485-150.03
133	203 643	Clamp Screw, Sight Base	94485-155.06
134	200 383	Compression Spring, Sight Base	1013-101.09
135	929 897	Ball, Sight Base	DIN 5401, 3 mm -III-6
136	200 384	Windage Screw, Sight Base	1013-101.30
137	200 371	Spring Washer, Turret Rear Sight	1013-101.28
138	922 617	Lock Washer, Turret Rear Sight	DIN 6798-A 5.3
139	200 372	Windage Clamp Screw, Turret Rear Sight	1013-101.29
140	233 133	Turret Rear Sight, **10.4**	
		"	94485-151

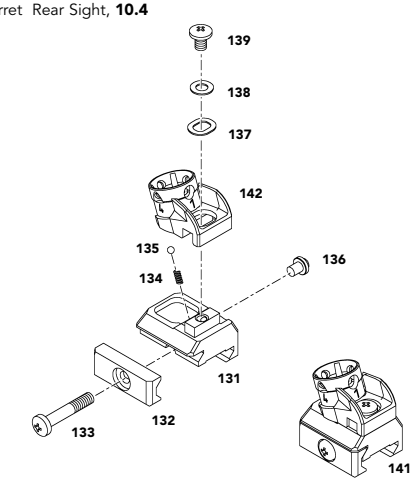


Fig. 110

Mechanical sight (Rear sight assembly), for 14.5" barrel model (two dots)

Illust.#	Ident.-Number	Description	Drawing-Number
141	233 197	Rear Sight, **14.5"** complete	94485-160
142	233 198	Turret Rear Sight, **14.5"**	94485-161

Mechanical sight (Rear sight assembly), for 16.5" + 20" barrel model currently not available.

30-rd HK High reliability steel magazine

Illust.#	Ident.-Number	Description	Drawing-Number
--	251 770	Magazine, 30-rd, compl.	94408
143	209 354	Housing, 30-rd	94358-10
144	251 772	Spring, 30-rd	94408-00.02
145	251 773	Locking plate	94408-00.03
146	251 775	Floor plate ext., front, compl.	94408-20
147	251 771	Follower	94408-00.01

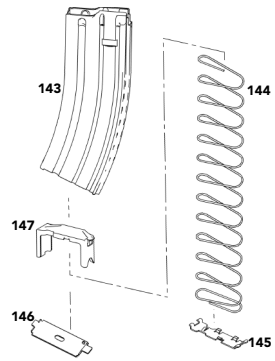


Fig. 111

20-rd HK High reliability steel magazine

Illust.#	Ident.-Number	Description	Drawing-Number
--	233 609	Magazine, 20-rd, compl.	94454-800
148	233 610	Housing, 20-rd	94454-810
149	251 772	Spring, 20-rd	94408-00.02
150	251 773	Locking plate	94408-00.03
151	251 775	Floor plate ext., front, compl.	94408-20
152	251 771	Follower	94408-00.01

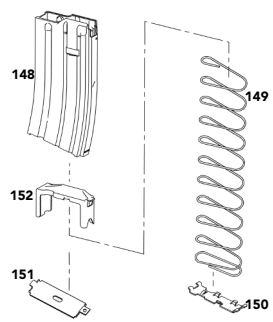


Fig. 112

(30-rd) Blank Round Safety Magazine

Illust.#	Ident.-Number	Description	Drawing-Number
--	209 756	Blank Rd Safety Magazine, compl.	94359
--	209 758	Housing, compl.	94359-10
153	209 762	Housing	94359-20
154	251 772	Spring	94408-00.02
155	251 773	Locking plate	94408-00.03
156	251 775	Floor plate ext., front, compl.	94408-20
157	251 771	Follower	94408-00.01
158	209 761	Slide	94359-10.03
159	209 760	Spring helical compression	94359-10.02
160	209 759	Spring housing	94359-10.01

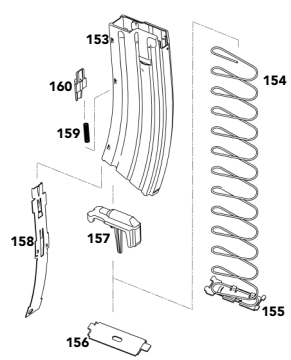


Fig. 113

HK416 Weapon Models, compl. (consists of: see section 6)

Illust.#	Ident.-Number	Description	Drawing-Number
--	203 550	HK416 D10RS	94454
--	203 551	HK416 D14.5RS	94455
--	233 222	HK416 D16.5RS	94511
--	203 552	HK416 D20RS	94456

HK416 Weapon Models, compl. **(consists of: see section 6)**

Illust.#	Ident.-Number	Description	Drawing-Number
--	233 726	HK416 10.4"	94568
--	233 727	HK416 14.5"	94569
--	234 721	HK416 16.5"	94570
--	234 722	HK416 20"	94571

HK416 Spare parts:

HK416 Lower Receiver Assembly **(see Fig. 103)**

Illust.#	Ident.-Number	Description	Drawing-Number
--	234 696	HK416 Lower Receiver compl. assembled with buffer + spring	94568-400
61	234 697	Extension Receiver	94568-400.01

Weapon Type _____ **Serial Number** _____

Date	Number of Rounds Fired	Cumulative Total of Rounds Fired	Operator´s Name	Maintenance & Remarks

Number of rounds fired

Weapon Type _____ **Serial Number** _____

Date	Number of Rounds Fired	Cumulative Total of Rounds Fired	Operator´s Name	Maintenance & Remarks

Number of rounds fired

Weapon Type _____ **Serial Number** _____

Date	Number of Rounds Fired	Cumulative Total of Rounds Fired	Operator´s Name	Maintenance & Remarks

Weapon Type _____ **Serial Number** _____

Date	Number of Rounds Fired	Cumulative Total of Rounds Fired	Operator´s Name	Maintenance & Remarks

HECKLER & KOCH
19980 Highland Vista Drive, Suite #190
Ashburn, Virginia 20147-4189
United States of America
Telephone: (703) 450-1900
Telefax: (703) 450-8160
www.heckler-koch.com

HECKLER & KOCH GMBH
P.O.BOX 1329
D - 78722 Oberndorf / Neckar
Germany
Telephone: +49 (0) 74 23 / 79-0
Telefax: +49 (0) 74 23 / 79-24 97
www.heckler-koch.de

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